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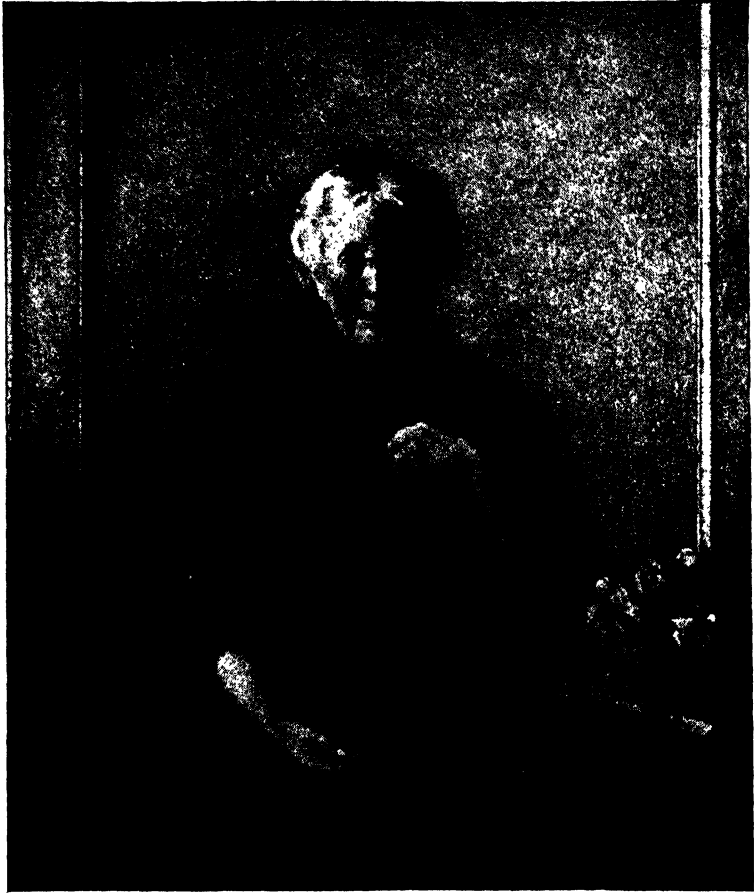
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THE
CONDUCT
OF
PHYSICAL
EDUCATION



AMY MORRIS HOMANS

*—From the portrait by Joseph De Camp, presented to Wellesley College, June 16, 1914, by the Mary Hemenway Alumnae Association.
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THE CONDUCT OF PHYSICAL EDUCATION

Its Organization and Administration

BY

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UNIVERSITY OF NEBRASKA

ILLUSTRATED



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PRINTED IN THE UNITED STATES OF AMERICA

DEDICATED
TO THE MEMORY OF
AMY MORRIS HOMANS
VALIANT TORCH BEARER OF THE PAST GENERATION
AND
TO OUR HOPES FOR THE FUTURE
VESTED IN
THE YOUTHFUL TORCH BEARERS OF A NEW DAY

Preface

INCREASING numbers of administrators in various organizations are finding it advisable and necessary to provide for programs of recreation and physical activity for the girls and women under their supervision. These organizations include schools of all types, recreational centers, industrial and business organizations, and sundry social groups. Those who must sponsor this work without the aid of properly trained leaders need information and guidance. For them this book has been written. Particularly for this group has much source material been presented since it is, as a rule, not available to such workers.

In many situations, inexperienced though well-trained teachers are at work; their inexperience calls for direction, their schooling for refreshment. For this group, too, has this book been written. Furthermore there have been constantly in mind the needs of students in training. For them much routine information has been presented as is necessary in a training course.

There may be some opinions herein given which are contrary to those of other professional workers; for them the author assumes full responsibility. Most of the theories, however, will be recognized as the common property of the profession—so much the common property that it is impossible to credit any persons or groups of persons with their origins.

Years of close contact with other workers in the field and with hundreds of girls and young women in quest of recreation, motor skills, and body training have given inspiration and assured an ever changing point of view. These have been potent forces in the moulding of the author's professional philosophy; to her co-workers and former students she, therefore, acknowledges her indebtedness.

For generous permissions to quote from their literature and to reproduce illustrative material, the author is indebted to many persons and organizations, too numerous to mention. For repeated permissions she is particularly indebted to the following: Mr. Elmer D. Mitchell, Secretary-Editor of the American Physical Education Association; Mr. James E. Rogers, Field Secretary of the National Recreation Association and Editor of the *News Letter*; the Camera Club of the high school of

Oak Park (Illinois); A. S. Barnes and Company, Publishers; the State Departments of Physical Education of Massachusetts, Ohio, Pennsylvania, and Washington; the Public School Physical Education Departments of Des Moines, Detroit, Philadelphia, Maywood (Illinois), and Wichita; and the Departments of Physical Education of many colleges and universities, particularly for illustrative material from Oberlin, Stephens, and Wellesley Colleges and the Universities of Nebraska and Texas.

For their challenging interest and encouragement in the writing of this book special thanks are due to the members of my staff, particularly to Miss Clara I. Rausch for her assistance in editing the manuscript, to Miss Katharine Schwake who, both in making the drawings and typing the manuscript, has taken infinite pains and given deep interest, thus lightening the task, and to my mother who, selflessly organizing family life to fit every mood for work in the study, constantly gives inspiration to greater endeavors.

It is the author's earnest hope that this book will inspire a sound philosophy of the fundamentals of organizing and administering physical education according to the highest professional standards and ideals.

MABEL LEE

The University of Nebraska
Lincoln
June, 1937

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CHAPTER I

THE PROFESSION OF PHYSICAL EDUCATION

"Muscular vigor . . . will always be needed to furnish the background of sanity, serenity, and cheerfulness to life, to give moral elasticity to our disposition, to round off the wiry edge of our fretfulness, and to make us good humored and easy of approach."

—WILLIAM JAMES.

FOR THREE QUARTERS of a century physical education has held a place in American education. Records of early courses appear in college catalogues of two generations ago.¹ Reports of pioneer efforts are preserved in the records of early conferences on "physical training."² Authentic state documents show that the need for physical education was recognized as early as 1859. A report of the Executive Committee of the State Normal School in the New York Assembly Documents of that date states:

While, for reasons given at length in the last report, no change has been made in the course of study, the committee have found it necessary to give a direct and special attention to the physical education of the pupils in the normal school. . . . The increased attention which . . . is being given to this branch of education in the schools of our large towns and cities . . . renders it essential that the teachers who go out from this institution should be competent to give systematic instruction in that branch. The committee have therefore added to the established outline of study, a course of gymnastic exercises, in which the pupils are required to engage daily, under the direction of a competent instructor.³

It was not until after the World War, however, that physical education was universally accepted in our school system. Even yet it is given but scant attention in the hinterlands where milking the cows and washing the dishes are frequently considered sufficient substitutes

¹ Dorothy Ainsworth, *The History of Physical Education in Colleges for Women*. A. S. Barnes and Company, New York, 1930.

² Elmer D. Mitchell, "The American Physical Education Association," *Journal of Health and Physical Education*, January, 1932, p. 3, and Isabel C. Barrows, *Physical Training*. George H. Ellis, Boston, 1899.

³ "Back in 1859," *Physical Education Bulletin*, No. 39, edited by W. H. Mustaine, Health and Physical Education Division, *State Department of Education*, New York, May, 1935.

for those educational activities designed to utilize the emotional and social thirst of youth which is not quenched by a dosage of reading, writing, and arithmetic.

THE PLACE OF PHYSICAL EDUCATION IN EDUCATION

! In its conception of service to mankind physical education is social-minded. Although in the opinion of some laymen it has been linked in the past with the cult of the big muscle, the charlatanism of the physical culture fadist and the theatricals of the trick muscle performer, it is no more a consort of these dissemblers than is the medical profession a companion of quackery or the legal profession an intimate of the pettifogger. Physical education is a branch of education founded on the sciences of sociology, psychology, physiology, and anatomy. It has an ancient and honorable heritage from the days of Plato and Aristotle. As such it has a very definite place in the educational world. Any educational procedure that ignores it is not meeting squarely the challenge of the development of the whole child.

4 **Physical Education Defined.**—Hetherington of Stanford University, a recognized philosopher of the physical education profession, defines physical education as "that phase of education which is concerned first, with the organization and the leadership of children in big muscle activities, to gain the development and the adjustment inherent in the activities according to social standards; and, second, with the control of health and growth conditions naturally associated with the leadership of the activities so that the educational process may go on without growth handicaps." 4

✓ **Present Concept of Physical Education.**—The capacity to enjoy life is recognized as one of the essential developments of the individual which should come through education. Physical education contributes directly to this outcome. It works in the present. It is decidedly realistic to the child. It produces tangible results in success and failure. It offers opportunities for group enterprise which bring the satisfactions that come from group achievements.

The survey of athletics which held the attention of the educational world at the close of the last decade brought out the following:

. . . a new conception of the whole situation [of athletics] as it affects public school life and relations is gaining ground. Briefly, it is to the effect that physical training and athletics are parts of physical education and that physical education is, in turn, a component of a larger field of

4 Clark W. Hetherington, *School Program in Physical Education*. Copyright, 1922, by The World Book Company, Yonkers-on-Hudson, New York.

school hygiene, which includes nutrition, medical and dental supervision, posture and education in human reproduction and development.⁵

Dr. Eugen Matthias of the University of Munich points out that there are countless deviations between the concept of physical education "only as an anatomically functioning muscle exercise" and the concept of it "only as a medium of expression." He claims that neither concept is entirely right, neither entirely wrong and that we must "consider Physical Education as it affects the body, and then consider the effects as they manifest themselves upon the soul experiences of man."⁶

Objectives of Education.—The National Education Association names health, citizenship, and worthy use of leisure as important objectives of education.⁷ Physical education offers one of the most fertile fields for the promulgation of these cardinal principles. Its own aims and objectives are in harmony with them. As Hetherington says:

Big muscle activities have inherent in them the exercise of the deepest and most powerful character forming emotional tendencies in human nature and they furnish the richest source of fundamental moral situations in the social relationships of children and youth.⁸

The Children's Charter.—In November, 1930, President Hoover called a Conference on Child Health and Protection "to get a composite picture of this complex American child, to find out how he rates physically, mentally, morally, what our rapidly changing civilization is doing to make or mar him, to determine where our social, educational, and governmental machinery is at fault in training him to his utmost capacities, and where it may be strengthened."⁹ The conference findings were embodied in the Children's Charter, a copy of which should hang in every school room and medical and social center in our land.¹⁰ Miss Agnes Samuelson, former President of the National Educa-

⁵ Howard J. Savage, Harold Bentley, John T. McGovern and Dean F. Smiley, M.D., *American College Athletics*, The Carnegie Foundation for the Advancement of Teaching, Bulletin No. 23, New York, 1929, p. 56.

⁶ *The Deeper Meaning of Physical Education* (Translated by Carl Schrader), Copyright, 1929, A. S. Barnes and Company, Publishers, New York, pp. 5-6.

⁷ "Cardinal Principles of Secondary Education," *Bureau of Education, United States Department of Interior, Bulletin* No. 35, Washington, 1918. (Under imprint of National Education Association.)

⁸ Clark Hetherington, *op. cit.*, p. 5.

⁹ *White House Conference 1930*. The Century Company, New York, 1931, Foreword.

¹⁰ Copies 17 inches by 19 inches suitable for framing are distributed through the United States Department of Interior for 15 and 20 cents a copy. Rates are reduced on quantity purchases.

tion Association, says that it should be used by all teachers as their working Bible.¹¹ It is as follows:

THE CHILDREN'S CHARTER

PRESIDENT HOOVER'S WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION RECOGNIZING THE RIGHTS OF THE CHILD AS THE FIRST RIGHTS OF CITIZENSHIP PLEDGES ITSELF TO THESE AIMS FOR THE CHILDREN OF AMERICA

I. For every child spiritual and moral training to help him to stand firm under the pressure of life

II. For every child understanding and the guarding of his personality as his most precious right

III. For every child a home and that love and security which a home provides; and for that child who must receive foster care, the nearest substitute for his own home

IV. For every child full preparation for his birth, his mother receiving prenatal, natal, and postnatal care; and the establishment of such protective measures as will make child-bearing safer

V. For every child health protection from birth through adolescence, including: periodical health examinations and, where needed, care of specialists and hospital treatment; regular dental examinations and care of the teeth; protective and preventive measures against communicable diseases; the insuring of pure food, pure milk, and pure water

VI. For every child from birth through adolescence, promotion of health, including health instruction and a health program, wholesome physical and mental recreation, with teachers and leaders adequately trained

VII. For every child a dwelling place safe, sanitary, and wholesome, with reasonable provisions for privacy, free from conditions which tend to thwart his development; and a home environment harmonious and enriching

VIII. For every child a school which is safe from hazards, sanitary, properly equipped, lighted, and ventilated. For younger children nursery schools and kindergartens to supplement home care

IX. For every child a community which recognizes and plans for his needs, protects him against physical dangers, moral hazards, and diseases; and makes provision for his cultural and social needs

X. For every child an education which, through the discovery and development of his individual abilities, prepares him for life; and through training and vocational guidance prepares him for a living which will yield him the maximum of satisfaction

XI. For every child such teaching and training as will prepare him for successful parenthood, homemaking, and the rights of citizenship;

¹¹ "Education Moving Forward," *Journal of Health and Physical Education*, June, 1936, p. 359.

and, for parents, supplementary training to fit them to deal wisely with the problems of parenthood

XII. For every child education for safety and protection against accidents to which modern conditions subject him—those to which he is directly exposed and those which, through loss or maiming of his parents, affect him indirectly

XIII. For every child who is blind, deaf, crippled, or otherwise physically handicapped, and for the child who is mentally handicapped, such measures as will early discover and diagnose his handicap, provide care and treatment, and so train him that he may become an asset to society rather than a liability. Expenses of these services should be borne publicly where they cannot be privately met

XIV. For every child who is in conflict with society the right to be dealt with intelligently as society's charge, not society's outcast; with the home, the school, the church, the court and the institution when needed, shaped to return him whenever possible to the normal streams of life

XV. For every child the right to grow up in a family with an adequate standard of living and the security of a stable income as the surest safeguard against social handicaps

XVI. For every child protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of play, and of joy

XVII. For every rural child as satisfactory schooling and health services as for the city child, and an extension to rural families of social, recreational, and cultural facilities

XVIII. To supplement the home and the school in the training of youth, and to return to them those interests of which modern life tends to cheat children, every stimulation and encouragement should be given to the extension and development of the voluntary youth organizations

XIX. To make everywhere available these minimum protections of the health and welfare of children, there should be a district, county, or community organization for health, education, and welfare, with full-time officials, coordinating with a state-wide program which will be responsive to a nation-wide service of general information, statistics, and scientific research. This should include:

- (a) Trained, full-time public health officials, with public health nurses, sanitary inspection, and laboratory workers
- (b) Available hospital beds
- (c) Full-time public welfare service for the relief, aid and guidance of children in special need due to poverty, misfortune, or behavior difficulties, and for the protection of children from abuse, neglect, exploitation or moral hazard

For every child these rights, regardless of race, or color, or situation, wherever he may live under the protection of the American flag¹²

¹² White House Conference on Child Health and Protection, *op. cit.*, pp. 46-48.

Workers in the field of physical education would do well to note how their contributions touch upon the above nineteen points.

Objectives of Physical Education.—In 1931 a special committee of the American Physical Education Association drew up the objectives of the profession, grouping them into Ten Cardinal Points in the Platform of Health and Physical Education. This list, as follows, was adopted by the Association as its official platform.

TEN CARDINAL POINTS IN THE PLATFORM OF HEALTH AND PHYSICAL EDUCATION

1. An adequate health examination and a comprehensive protection program for every school child, to include control of communicable diseases, healthful school environment, and hygienic standards in the entire curricular and extra-curricular life of the school.

2. Adequate indoor and outdoor facilities in every school and adequate time in the curriculum.

3. Coordination of community effort in policies, finances, and use of facilities for programs of health, physical education, and recreation.

4. Health and physical education instruction, based upon scientific materials progressively arranged throughout the grades and upper schools, and directed toward personal accomplishment and social ideals.

5. Establishment of procedures for the scientific classification, grading, and promotion of individuals to insure the best educative results.

6. Professionally trained and accredited supervisors and teachers for all branches of the health and physical education program, including the coaching of athletic teams.

7. Promotion of the idea of play and recreation as aspects of the finest living.

8. The accreditation of health and physical education in all schools and colleges for graduation and the acceptance of such credits from high school for college entrance.

9. The organization and administration of health and physical education in schools as a single, executive department, closely integrated and thoroughly coordinated with the general purposes of education.

10. Extension of the desirable and practical measures for the promotion of health and physical education among boys and girls in schools to all members of the community, as the broader implications of education are recognized.¹³

President Meader of Russell Sage College boils these objectives down to two definite goals:

1. *"The training of a perfectly functioning human being, physically*

¹³ Committee of the American Physical Education Association, "Ten Cardinal Points in the Platform of Health and Physical Education," *Journal of Health and Physical Education*, September, 1931, Cover-title.

strong and well-poised, organically sound and efficient, mentally alert and forward-looking, emotionally well-controlled and well-balanced.

2. "The education of a cooperative, creative, serviceable member of society with ideals, attitudes, habits, and standards of living which make for bigger, broader, more tolerant, more interesting, more helpful, and more creative men and women."¹⁴

The Need for Physical Education.—Hetherington states the need for physical education in terms of the need for development of organic and nervous power, mental health, and adult recreative habits for leisure, saying:

. . . Organic power means nutritive power, vigor, endurance, the ability to expend large amounts of energy with a slow onset of fatigue and a quick recovery from fatigue. . . . No other activity of child life can compare with these vigorous play activities for the development of general organic power, and organic power is the basis of health.

Big muscle play is the most generally interesting and the most dominantly social of all the activities of child life. In this play some of the deepest emotions of human nature are exercised in the social relationship. . . . The individual who has experienced a rich play life during childhood and youth is apt to be emotionally sane during adult life. The individual who fails to have a joyous play experience in social relationships is sure to have some cogs missing in his emotional machinery.

. . . recreative resources in adult life depend on the development during childhood of the ability to enter with ease and social satisfaction into vigorous outdoor social recreations requiring four kinds of power, viz.: the organic power to expend large amounts of muscular energy with satisfaction, the skill to enter into the activities without irritation, the habitual emotional reactions that make for enthusiasm, the knowledge and skill to understand the technique of the activities. Play is the developmental source of these powers and their health values.¹⁵

Bertrand Russell declares that, "play and pretense are a vital need of childhood, for which opportunity must be provided if the child is to be happy and healthy, quite independently of any further utility in these activities."¹⁶

¹⁴ J. L. Meader, "Physical Education and Enriched Living," *Journal of Health and Physical Education*, June, 1936, p. 363.

¹⁵ "Play Spaces as Health Education Equipment," *American Physical Education Review*, December, 1926, pp. 1125-26.

¹⁶ *Education and the Good Life*, Liveright Publishing Corporation, New York, 1926, p. 123.

The Place of Physical Education in the Progressive Education Movement.—Physical Education has been a leader in the movement for the development of the individual according to his own needs and capacities. Its programs of testing and measuring, of examining and classifying, of offering individual instruction and opportunities for student leadership are but a part of its contribution in this direction.

THE PRESENT STATUS OF PHYSICAL EDUCATION

Physical Education has advanced rapidly in the past twenty years. In 1914 three states had physical education laws but none of these were actively promoting the work as a state program. By 1936 thirty-six states, representing 90 per cent of the population, had laws, thirty-four, representing 80 per cent of the population, had both laws and courses of study, and twenty-two states, representing 70 per cent of the population, had the addition of state directors.¹⁷ By April, 1937, four additional states had acquired acting state directors.¹⁸

In 1919–1920 a study of 609 small high schools in New York State showed physical education to be taught in less than 2 per cent of the schools, while in 1927 a study of a sampling of 196 small schools of forty-four states showed physical education to be offered in 29 per cent of the schools.¹⁹ A survey of present growth is given below.

The Educational Panic of 1932–1934.—The depression brought on a panic in education which resulted in a reaction against physical education along with all other specialized subjects such as music, art, and home economics. They were labeled the “fads and frills” of education by those unthinking elders who in economic stress recognized as worth while only those things they had experienced in their own school days of the hickory stick. Yet in spite of drastic treatment in certain localities and of dire threats in others, there were on the whole but few actual eliminations and but few drastic cuts in staff. Physical education itself suffered little from attacks. In the larger cities especially, physical education suffered no more than the routine subjects. In fact it was found that physical education came out of the depression in better condition than any other special subject. In practically all state

¹⁷ Society of State Directors of Physical and Health Education, *News Bulletin*, No. 2, October, 1936, p. 1.

¹⁸ The list of states having directors, manuals and laws may be procured from the American Physical Education Association.

¹⁹ Department of Superintendence, *The Sixth Year Book—The Development of the High School Curriculum*, National Education Association, Washington, 1928, p. 96.

and city departments where supervisors of drawing, music, art, and penmanship were eliminated the physical education supervisor was retained. In the 36 states having physical education laws, at the onset of the depression, no state laws were repealed.²⁰

During this same period the United States Office of Education reported that physical education was only eighth on the list of the subjects that suffered elimination of staffs and fourth on the list of subjects most frequently eliminated, with music, vocational education, and home economics heading the list.²¹

The Necessity for Frills.—Elmer D. Mitchell, Editor for the American Physical Education Association, called attention to the necessity of "frills" saying:

There were no playgrounds or gymnasiums until the crowded conditions of large cities forced taxpayers to provide other places than busy streets for play. Nor were games and physical drills introduced until it was evident that they were the only practical substitute for the exercise that the home could no longer provide the growing boy or girl in the form of "chores." There were no physicians in the schools until the principle of germ diseases was discovered along with the truth that one afflicted child could expose scores of others in the school. There were no health examinations in schools until it was learned that even the slightest physical defects would cause retardation in school work and that, apart from the serious result to the individual in permanent health impairment, the cost of "repeater" children was tremendous. Athletics did not come into the schools until the students themselves had tired of hazing, fighting, and destructive pranks, and made this contribution to education. There was no emphasis on recreative sports and leisure education until the present generation was faced with the greatest era of leisure that has ever fallen to the lot of any age of mankind.

Those writers who grow sentimental in extolling the "little red school house," and by implication, the "3 R's" are in reality and in all seriousness asking that the children return to a pioneer type of education and yet they would consider it a most ridiculous suggestion if they, themselves, were asked to return to the pioneer style of living.²²

²⁰ Report of a trip covering 12 states and 35 cities made in the latter part of 1933 by James E. Rogers, the Field Secretary of both the National Recreation Association and the American Physical Education Association, published in "What the Depression Is Doing to Physical Education," National Physical Education Service, *News Letter* No. 66, National Recreation Association, New York, January 1, 1934, pp. 3-4.

²¹ "Some Effects of the Economic Situation on City Schools," *Circular* 79, United States Printing Office, Washington.

²² Editorial, "The Necessity for Frills," *Journal of Health and Physical Education*, March, 1933, pp. 30-31.

In response to the many attacks that were being made upon physical education in the name of economy, a *National Committee on Physical Education*²³ issued a challenging statement to the public, which is in part:

In this period of unprecedented social and economic adjustment, laymen are asking educators to eliminate non-essentials and "frills." It is not that people have lost faith in modern education but that some retrenchment in educational expenditures has become imperatively necessary. One of the fields most frequently questioned is physical education. Is it non-essential, or is it indispensable? In attempting to solve this serious problem, it is important not to abandon services which may for the moment appear as non-essential, but which are in fact of an indispensable character.

. . . if we expect to train youth for complete and worthy living, schools and educational institutions must not abandon such essential services. In this machine age with its deadly monotony of routine labor, its emphasis upon mechanical efficiency, and its trend toward vicarious emotional life, physical education has become increasingly a necessity. To neglect the education of all youth in functional motor skills or to fail in maintaining their interest in wholesome play is to court serious social problems in the years that lie ahead.²⁴

At this same period the *Mencken-Dewey debate* attracted considerable attention in the educational world when the Editor of the *American Mercury* and the Professor of Philosophy of Columbia University took sides on the question "Shall We Abolish School 'Frills'?" Mencken for the affirmative said in part:

The chief prophets of the movement, in those gaudy days, went to great lengths. They built larger and larger schoolhouses with fewer and fewer classrooms and more and more gymnasias, laboratories, *ateliers*, and shops. They invented multitudinous new species of "experts" and put them gloriously to work. They sweated the poor school-ma'ms during the hot summers with interminable courses in quack "sciences." They called for larger and larger contributions from the taxpayer, and damned him boldly whenever he cried for quarter. And in their topmost ranks they dreamed voluptuously of adding a secretary of

²³ This committee was composed of national leaders such as Jane Addams of Hull House, Harry Emerson Fosdick, Stuart Chase, Norman Thomas, the United States Commissioner of Education, the superintendents of schools of Chicago, Philadelphia, Detroit, Providence and Denver, the presidents of a number of colleges and universities and the presidents of the American Medical Association, the American Public Health Association, and the American Physical Education Association.

²⁴ National Committee on Physical Education, "Physical Education Today," *Journal of Health and Physical Education*, March, 1933, p. 4.

education to the cabinet, and of centralizing the whole romantic business of uplifting the nation in one grand Camorra of pedagogical politicians.²⁵

Dewey supporting the negative said:

The contribution made to economy by schools should not be such that schools will revert to the old-fashioned dame schools where pupils can learn just enough to make a docile peasantry and fodder for factories, with their culture confined to the headlines of tabloids.

The schools represent the interest of the young. The young do not constitute a vested interest; they are not organized nor powerful. But they stand for what is most precious in American life and for the future country that is to be. For these reasons I do not think the ridicule of literary folk nor the direct assault of big taxpayers will be successful.²⁶

The Situation in the Present Decade.—Reports from various states give a good cross section of the conditions throughout the country which, in spite of the depression, show an increase in opportunities for physical education. In 1930 O'Shea declared that physical education was growing at a faster pace than any other subject of the school program.²⁷ At that time *Alabama* was using county directors of physical and health education and doing a great deal of extension work for both city and county teachers. *Florida* had three full time teachers of physical education in 1924, seventy-three in 1927, and sixty in 1930.²⁸

*Indiana*²⁹ shows a steady growth in physical education in the following report:

<i>Teachers of Physical Education</i>	<i>Schools Offering Physical Education</i>
1928-29.....567.....	349
1929-30.....802.....	477
1930-31.....902.....	549
1931-32.....934.....	554
1932-33.....1037.....	665

When the State Legislature threatened to repeal its physical education law in 1932, sentiment was so strong in favor of its retention that the movement was abandoned. The State Board of Education an-

²⁵ H. L. Mencken, "Shall We Abolish School 'Frills'? Yes." *The Rotarian*, May, 1933, p. 48.

²⁶ John Dewey, "Shall We Abolish School Frills? No." *The Rotarian*, May, 1933, p. 49.

²⁷ M. V. O'Shea, "The March of Education," *Nation's Schools*, February, 1930, p. 21.

²⁸ National Physical Education Service, *News Letter* No. 37. National Recreation Association, New York City, February, 1931.

²⁹ National Physical Education Service, *News Letter* No. 60, National Recreation Association, New York City, June 1, 1933.

nounced May 5, 1932, that beginning with the school year 1934-1935 all Coaches of Interscholastic athletics in commissioned high schools are required to hold a license or permit in physical education.³⁰

Information given out by students at *Iowa State Teachers College* covering 360 different high schools in that state for the year 1931 showed that over 90 per cent of these schools required physical education, 35 per cent had full time physical education teachers, 57 per cent had intramural programs for girls and 38 per cent gave physical and medical examinations.³¹

In *Massachusetts* the number of teachers of physical education increased from 211 with 60 gymnasiums in 1920 to 1,100 teachers with 700 gymnasiums in 1932.³² *Minnesota*³³ has reported the following information:

	1924	1927	1931
No. of counties out of 80 participating in all county play day	10	—	51
No. of rural children taking part in May Day Play Day	—	40,000	—
No. of full-time physical education teachers in state	108	—	301
No. of part-time physical education teachers in state	63	—	698

The Commissioner of Education of *New York* has required since October, 1932, that all pupils shall be given a program of health protection, health teaching, and physical education, adapted to the individual needs of the pupils in all grades and that all schools employing twenty or more teachers shall have a special physical education teacher, properly trained.³⁴ *Ohio* and *California* are leading the country in the employment of county supervisors of health and physical education. *Ohio* has a county public health unit with at least a part-time health commissioner in every county, a full-time commissioner in most.³⁵

In *Pennsylvania* there is a state-wide program for the inspection of athletes in all schools. There are building programs in many cities permitting no elementary schools to be built without a gymnasium. No

³⁰ N.P.E.S. *News Letter* No. 62, September, 1933, p. 7.

³¹ Women's Division, National Amateur Athletic Federation, *News Letter* No. 21, New York City, January, 1932.

³² National Physical Education Service, *News Letter* No. 63, National Recreation Association, New York City, October, 1933.

³³ Arranged from N.P.E.S. *News Letters* Nos. 11, 27 and 48, June, 1928, February, 1930, and March, 1932.

³⁴ N.P.E.S. *News Letter* No. 65, December, 1933.

³⁵ N.P.E.S. *News Letter* No. 22, September, 1929.

post-season games in competitive sports are permitted. A state-wide program for girls' athletics is promoted. Only those high schools are accredited that offer creditable work in physical education for a minimum of three periods of work a week.³⁶ The number of teachers of physical education in the state for the years 1921 to 1935³⁷ has been as follows:

1921	153	1929	1300
1922	171	1930	1481
1923	344	1931	1807
1924	444	1932	2106
1925	492	1933	—
1926	565	1934	2139 ³⁸
1927	856	1935	2200
1928	1008		

In 1934 those properly certified numbered 1,678.³⁹ The State Superintendent reported for 1934-1935 that the physical education teachers outnumbered all other groups of special teachers; there was a physical education program in 575 school districts as compared to 25 districts in 1920; in the four year professional training courses of the state there were 1922 students in training; and 12 per cent of the cost of all high school instruction in the state for the past 15 years had been spent for physical education.⁴⁰

In *Virginia*, as long ago as 1928, practically all schools were meeting the state requirement in time allotment in physical education. The whole state was covered by a staff with cars at their service. These supervisors visited 4,600 schools, gave personal supervision to over 14,500 classes and introduced physical education into 1,400 schools. The five-point system in connection with physical defects was being carried out in every county. Most of the rural schools were meeting the state sanitary requirements. Play days were widespread, many schools having 85-95 per cent participation.⁴¹ In 1933, 75 per cent of the schools had organized programs of physical and health education with the programs better arranged than formerly to meet the individual needs of pupils.

³⁶ N.P.E.S. *News Letter* No. 27, February, 1930.

³⁷ J. E. Rogers, "Around the Country," *Journal of Health and Physical Education*, May, 1935, pp. 36-37.

³⁸ A. D. Browne "Remarks Regarding Opportunities for Employment in Health and Physical Education," *Bulletin*, Department of Physical Education, Peabody College, December, 1934.

³⁹ National Physical Education Service, *News Letter* No. 72, National Recreation Association, New York City, September, 1934.

⁴⁰ James N. Rule, "Health and Physical Education Faces the Future," *Journal of Health and Physical Education*, June, 1935, p. 3.

⁴¹ N.P.E.S. *News Letters*, Nos. 11 and 19, June, 1928 and April, 1929.

These programs were functioning for 85 per cent of the school children of the state with local school boards beginning to help out financially in the purchase of loose equipment.⁴²

Many *State Departments of Education* are conducting institutes of Physical and Health Education. Among them are Alabama, California, Connecticut, Delaware, Florida, Georgia, Iowa, Michigan, Minnesota, Missouri, New Jersey and West Virginia. The last named holds a county institute in each county.⁴³

Present Needs.—In spite of recent professional gains throughout the country there is still much to be undertaken to give physical education its rightful place in education. The following are but a few of the needs arising from the present situation:

1. Better trained faculties in many teacher training institutions
2. Better trained men teachers for high school work
3. Better facilities in most schools
4. Better health supervision and follow up
5. More teachers trained in physical education
6. Better understanding of adult recreation needs
7. Better understanding of school needs by adults
8. Better training in physical education of the general teachers
9. Placing of athletics under physical education
10. Better cooperation of physicians in regard to physical defects of children
11. Better understanding of curriculum needs
12. Better athletic programs for high school girls
13. Increased personnel for better state, county, and city supervision
14. Better training of teachers for the small high schools
15. Better opportunities for the physically handicapped
16. More attention to physical education and less to athletics in many places
17. Proper certification of larger numbers of physical education teachers⁴⁴

THE FUTURE OF PHYSICAL EDUCATION

As physical education has progressed from the old day of formal drill to the new day of recreational activities, from an overtraining for

⁴² National Physical Education Service, *News Letter* No. 65, National Recreation Association, New York City, December, 1933.

⁴³ J. E. Rogers, "What State Departments of Education Are Doing in Physical and Health Education," *Report* No. 4, National Physical Education Service, New York, National Recreation Association.

⁴⁴ Arranged from James E. Rogers *Urgent Problems Confronting State Directors of Physical and Health Education* (Enclosure), National Physical Education Service, *News Letter* No. 91, National Recreation Association, New York City, June, 1936.

the few to an enrichment of life for the many, from the big muscle movement of the trainer to the efficient health idea of the educator, from the generalized training of the masses to the specialized attention of the individual, from the side show of the hanger-on to the main tent of education, so it must keep on progressing to meet the future hopes of a new generation.

Oberteuffer, of Ohio, portends for the future thus:

1. Health education and physical education will become elements in an integrated curriculum, administered and taught as an area of instruction.

2. Stripes on the sleeve will no longer be criteria for teaching ability. Athletic coaches will be teachers and as such will be certified according to professional standards of the day.

3. Health education will assume a considerable position in the school programs. The physical education teacher will join with others in developing this important aspect of education.

4. There will be a decrease among students as spectators at interscholastic and intercollegiate events and a greater interest among students in participating themselves. . . .

5. The visionary notion of "give the game back to the boys" will become more of a reality than is now thought.

6. The existing discrepancy of expenditure of funds for boys' and girls' physical education will vanish. Girls will receive their due share of space, equipment, and the budget.

7. Intramural athletics will continue to expand, however, if they are developed through artificial prize incentives they will become over-organized and break down from topheaviness. They will, in many places, supersede interscholastic sport.

8. Athletes will receive a complete physical examination at the beginning and the end of every season.

9. Participation in athletics will be considered not extracurricular but may develop on an elective credit basis as a part of the curriculum in physical education. This will hasten the demise of current eligibility rules.

10. The faculty manager or graduate manager system of athletic administration will be no more because the well trained person in physical education will be able to run his own business without borrowing from other areas.

11. The financial control of all school health and physical education will be vested in the Board of Education and public funds will be expended for all phases of the program.

11. Municipalities will increase by more than half their present expenditures for playgrounds and recreation.

13. School administrators will recognize in the program a high educational value, will expect and receive educational outcomes, and

the current gap between the professional physical educator and other teachers and administrators will narrow perceptibly.⁴⁵

There should be added to the above list adult education in physical activities. The signs of the time point to a not too far distant day when all adults as well as all children may avail themselves of opportunities of organized education in the field of physical education.

A Challenge to Physical Education.—Recent years have brought us the need of appraising carefully our educational procedures and our educational fields. The machine age has given freedom previously unknown and it will be wasted if not used in the pursuit of activities that are developmental. And physical education is one of the most important subjects in the school curriculum for the training of youth for play, leisure, and recreation. The Editor of the *Journal of the National Education Association* says: "The time has come when recreation for all must become as universal as education for all. . . . This means an increased emphasis on physical education."⁴⁶

President Meader of Russell Sage College says that in our schools "our great problem is to prepare and inspire the adults of tomorrow to ascend . . . to those mystical and glorious heights of their own highest selves" and that "the three strategic subjects to which we . . . are looking for the greatest help in this all-important task are sociology, psychology, and physical education."⁴⁷ A similar acknowledgment of the value of physical education is given when the defense of the junior high school is made on the strength of its superior opportunity in "contact with a greater number of subject fields, especially social studies, physical education, fine arts, and industrial arts."⁴⁸

Charters of Ohio, in addressing the Society of Directors of Physical Education for Women in Colleges and Universities in St. Louis in April, 1936, stated that socialization is one of the chief aims of education and that since it cannot be readily effected in the classroom it falls primarily to the physical educator to achieve the results. This is a challenge which the educator who is interested in service to humanity cannot ignore.

⁴⁵ D. Oberteuffer, National Physical Education Service, *News Letter* No. 50, National Recreation Association, New York, May, 1932, pp. 2-3.

⁴⁶ Joy Elmer Morgan, "Physical Education and the Machine Age," *Journal of Health and Physical Education*, June, 1932, p. 5.

⁴⁷ "Physical Education and Enriched Living," *Journal of Health and Physical Education*, June, 1936, pp. 362-3.

⁴⁸ Edwin S. Lide, "Why the Junior High School?" *School Life*, September, 1933, p. 6.

Opportunities for Physical Education.—The enrollment figures of the schools of the Nation supplemented by those of the various recreational units should give a hint of the opportunities for physical education to function. In 1923 the schools of the United States served thirty million students in one hundred twenty-seven thousand independent school districts and fourteen hundred eighty-six colleges and universities.⁴⁹

What of the *physical education* of these thirty million children? Too many of them are passing through our schools with this part of their education left to chance and nature. Sixty-one per cent of the secondary schools in the United States have an enrollment of less than one hundred pupils.⁵⁰ There are eleven million children in rural schools and four million in one-room schools. Yet the small high schools, the rural schools, and the one-room schools⁵¹ are the very ones that are handicapped in equipment, facilities and properly trained teachers. This handicap is not so much a matter of necessity as a lack of understanding of the importance of physical education on the part of school boards, superintendents, and principals.

The schools owe it to these thirty million children to provide such activity as will meet their developmental needs socially, emotionally and physically. Training in the fundamentals of social relationships is well provided in team games; experiences in group situations that strike deep root because of intense emotional responses are supplied through the same channels; desire to excel in physical activity furnishes the incentive for physical development; yet in far too many schools physical education is entirely neglected or is merely incidental in spite of the fact that it offers so fertile a field for the promulgation of the cardinal principles of education.

PROFESSIONAL ORGANIZATIONS

There are a number of professional organizations in the field of physical education, each contributing its share to the advancement of the profession through the channels of its main interest. For mutual benefit, most of them are affiliated with each other and the "mother

⁴⁹ *School Life*, Office of Education, Department of Interior, Washington, October, 1933, Cover-title and p. 35.

⁵⁰ Committee Report, "Curriculum Problems of the Small High School," *The Development of the High School Curriculum, Sixth Yearbook of Department of Superintendence of National Education Association*, Washington, 1928, p. 83.

⁵¹ White House Conference, *op. cit.*, p. 220

organization" is the American Physical Education Association.⁵² All teachers of physical education, whether part- or full-time teachers, should be members of this organization not only to lend their support to movements for the betterment of the profession but to benefit personally from the advantages of membership. Membership in the National Education Association is usually required of public school teachers but that membership alone is not sufficient for those who are interested in physical and health education and desire to keep posted on professional literature and professional movements and to keep abreast of the times within their field.

Aside from the mother organization there are many other groups, each functioning in its own particular field of professional interest of administrative concern or of geographical advantage. Every teacher of physical education should associate herself with a number of these groups; one selected for its activity interest, one for its administrative grouping, and at least one within her own geographical situation.⁵³

⁵² After 1937 this organization is to be known as the American Association of Health and Physical Education—a Department of the National Education Association. It was founded in 1885 by a small group, only one of whom is now living—Dr. William G. Anderson of Yale University. As now organized it is made up of six district societies and one province society known as the Eastern, Southern, Middle West, Central, North West, and South West District Societies and the Canadian Society of the American Physical Education Association. Each district holds a convention annually and each year some district acts as host to the national convention. At these conventions, time is given to the consideration of the following interests: teacher training, public school work, athletics for boys and men, athletics for girls and women, college physical education, Y.W.C.A. and Y.M.C.A. physical education, camping, dancing, therapeutics, recreation, and health education.

The Association publishes two magazines, the *Journal of Health and Physical Education* and the *Research Quarterly*. Membership dues are \$2.00 a year including subscription to the *Journal*. Professional membership dues are \$5.00 a year including subscription to both magazines.

⁵³ Following is a list of professional organizations with which every physical education teacher should be familiar.

The American Physical Education Association (The American Association of Health and Physical Education—a Department of N. E. A.).

Executive Secretary, Elmer D. Mitchell, 311 Maynard Street, Ann Arbor, Michigan.

The National Recreation Association

Secretary, Howard Braucher, 315 Fourth Avenue, New York City.

The Women's Division of the National Amateur Athletic Federation

Executive office, 303 West 42nd Street, New York City.

The Society of Directors of Physical Education for College Women

Secretary, Edna Munro, University of Indiana, Bloomington.

The Society of State Directors of Physical Education

Secretary, James E. Rogers, 315 Fourth Avenue, New York City

The Athletic Federation of College Women

Executive Secretary, Marguerite Schwartz, Lathrop Hall, Madison, Wisconsin.

Information concerning such organizations is available in our professional literature.⁵⁴

THE PLACE OF WOMEN IN PHYSICAL EDUCATION

This book is dedicated to the memory of Amy Morris Homans who, a generation ago, made history for physical education in America. She was one of the very small band of women who entered the profession in that day. On October 29, 1933, she died at the age of eighty-five. As a student under her direction, both in Boston and at Wellesley College, the author felt the imprint of her unusual personality. The following expresses the deep feeling of all who came in contact with her.

Miss Homans' distinctive contribution to the profession of physical education was her constant emphasis on professional ethics, and her insistence on liberal arts as well as activities courses for professional training, during the early years when activities courses were considered the most important qualification for a teacher of physical education. . . . Her professional code for her students permitted no compromise with the standards of a gentlewoman. . . .

The physical education profession owes much to Miss Homans' ripe wisdom, to her serenity, to her high courage. Never combative or argumentative, she could command a gentle and imperturbable arrogance which usually carried her point. Those who were fortunate

⁵⁴ Elmer D. Mitchell, "The American Physical Education Association," *Journal of Health and Physical Education*, January, 1932, p. 3.

Weaver Pangburn, "The National Recreation Association," *Journal of Health and Physical Education*, February, 1932, p. 3.

Agnes Wayman, "The Women's Division of the National Amateur Athletic Federation," *Journal of Health and Physical Education*, March, 1932, p. 3.

Histories of the various district societies of the Directors of Physical Education for College Women, *Journal of Health and Physical Education*, May, 1932, pp. 3, 6, and 7.

Carl S. Schrader, "The History of the State Directors' Society," *Journal of Health and Physical Education*, December, 1933, p. 3.

Marguerite Schwartz, "The Athletic Federation of College Women," *Journal of Health and Physical Education*, May, 1936, p. 297.

R. Tait McKenzie, "The American Academy of Physical Education," *Journal of Health and Physical Education*, June, 1932, p. 14.

Helen W. Hazelton, "Seventeen Years of Progress—of the Women's Rules and Editorial Committee of the Women's Athletic Section of the American Physical Education Association," *Journal of Health and Physical Education*, April, 1934, p. 11.

Avis Dinsmore and Edith Gates, "National Association of Employed Officers of the Y. W. C. A.," *Journal of Health and Physical Education*, January, 1933, p. 5.

Josephine Rathbone, "American Physiotherapy Association," *Journal of Health and Physical Education*, September, 1933, p. 7.

enough to work with her will long remember her whimsical humor; her intellect, keen as a sword; her professional standards, inexorable as the Hippocratic code. There is much of triumph in her passing.⁵⁵

Since the days of more than fifty years ago, when Amy Morris Homans and other fine women of her type entered the profession of physical education, woman's place in this field has been secure. Although there has long existed in the minds of some unthinking laymen the idea that none but mannish women *do* enter this field and in the minds of others that none but mannish women *should* enter the field, the highest type of woman teacher has always been in the majority within its ranks. As the fine type of man who is attracted to this field of educational work has always had to fight against the layman's idea of the uncouth, prize-fighting, big-muscle exponent of physical activity so has the woman educator had to work against the mistaken idea that work in physical education robs her of femininity.

True it is that some mannish women do enter the profession and that others, having entered, do from some mistaken values purposely strike a mannish pose. Both types are in the minority and are not representative of the great rank and file of women of culture and refinement who are in the profession.

Increasingly administrators are recognizing the importance of placing women over the physical education work for girls. The day is passing when the boys' football coach is given the responsibility of the welfare of the girls. The new education is calling for more physical training than did the old. The new leisure is demanding for the masses skills in physical activities. The new day is bringing to woman increased opportunities to be man's comrade in play. These changes bring an increased need for women educators in this profession.

⁵⁵ Mary Channing Coleman, "In Memoriam," *The Journal of Health and Physical Education*, December, 1933.

CHAPTER II
APPRAISAL OF ACTIVITIES

"Each game, each athletic contest becomes an opportunity and obligation for growth along educative lines."

—KILPATRICK.

A PROGRAM PLANNED to appeal to all types of pupils, to fit all degrees of physical capacities and to give an all-round physical education must be widely varied. According to a survey made by the author in 1930, the ten most popular sports for school girls were archery, baseball (modified), basketball, field hockey, golf, soccer, track and field, tennis, swimming and volleyball (Table I). Dancing, in its various forms, holds a high place with sports in popularity. These activities should be given serious attention but for the enrichment of a program built around this list as a core a great variety of activities is appraised in this chapter in order to assist the program builder in making a wise selection according to the facilities, climate, and budget allowance of her situation and according to the age level and interests of her group.

For convenience the activities have been grouped into four classes:

1. Group team sports which use a number of players to a team.
2. Individual team sports which as a rule use one or two players to a team.
3. Individual sports which a person may pursue alone.
4. Miscellaneous activities other than sports.

GROUP TEAM SPORTS

The impulse people feel to compete against others can be satisfied in a large measure by participation in team sports. That love for adventure possessed by all normal boys and girls can also be fulfilled in this way. The socializing influence of athletics cannot be denied although there must constantly be kept in mind the fact that the kind of socialization which takes place depends upon the kind of leadership that accompanies the sport. Good sportsmanship and its concomitants do not come out of team sports unaided.

TABLE I
SPORTS ENGAGED IN BY AMERICAN SCHOOL GIRLS *

Activity	Number of the 10 Groups Using It	Per Cent of the 620 Organizations Using It	Used Most by	Per Cent of Use by This Group	Used Least by	Per Cent of Use by This Group
1. Basketball.....	All 10	90	Preparatory Schools and High Schools of cities over 300,000	100	Y. W. C. A.'s	69
2. Volleyball.....	All 10	90	Normal Schools, High Schools of cities over 300,000 and Y. W. C. A.'s	100	Women's Colleges	62
3. Baseball (girls' rules).	All 10	90	High Schools of cities of 50,000 or over	100	Y. W. C. A.'s	50
4. Tennis.....	All 10	79	High Schools of cities over 300,000, Co-ed Colleges, Women's Colleges, Preparatory Schools	100	High Schools of cities 25,000 or over	57
5. Swimming.....	All 10	65	Women's Larger Colleges	100	High Schools of cities 25,000 or over	38
6. Field Hockey.....	All 10	46	Women's Colleges	95	Y. W. C. A.'s	25
7. Archery.....	All 10	45	Women's Colleges	87	High Schools of cities 25,000 or over	14
8. Track and Field.....	8	46	Women's Colleges	79	Normal Schools	0
9. Soccer.....	All 10	44	Normal Schools	67	Y. W. C. A.'s	8

10. Golf.....	All 10	22	Preparatory Schools	41	Small Towns	6
11. Horseshoe Pitching...	All 10	18	Universities	34	Y.W.C.A.'s	2
12. Ring Tennis.....	All 10	15	Universities	34	High Schools in cities over 50,000 and small towns	4
13. Bowling.....	All 10	13	Normal Schools	50	Preparatory Schools	0
14. Speedball.....	All 10	13	High Schools of cities of over 300,000	31	Y.W.C.A.'s	2
15. Fencing.....	8	9	Universities	23	High Schools in cities of over 50,000	0
16. League Baseball.....	All 10	9	Normal Schools	16	High Schools in cities of over 50,000	4
17. Rifle Marksmanship...	4	8	Universities	25	Co-ed Colleges	6
18. Paddle Tennis.....	All 10	8	High Schools of cities of over 50,000	16	Preparatory Schools	0
19. Quoits.....	7	6	High Schools of cities of over 300,000	18	Women's Colleges	4
20. La Crosse.....	3	2.6	Women's Colleges	12		
21. Horseback Riding....	3	2	Preparatory Schools	25	Women's Colleges	1

* Mabel Lee, "A Survey of Athletic and Gymnastic Costumes Used by American Girls and Women," *Research Quarterly of A.P.E.A.*, March, 1932, pp. 10-11. This article was written under the auspices of the Women's Athletic Section of The American Physical Education Association. Included in the costume survey was a survey of sports used, covering 10 groups, namely: universities, coeducational colleges, women's colleges, preparatory schools, normal schools, Y.W.C.A.'s and high schools in four groups of cities, those of population of over 25,000, 50,000, 100,000 and 300,000.

In many communities the amount and type of sports for girls, particularly of basketball, have been so ill-advised that there has resulted a reaction against all athletics for girls. This reactionary attitude is equally ill-advised. It is countered by Nash of New York University who says:

Athletics for girls? Certainly! It is one of the basic phases of education. How much? Just as much as the organic examination indicates will give benefit to the individual. When? Throughout life. Where? Anywhere, where results as indicated above can be produced. As a matter of practical administration this means trained women physical directors, capable of classifying children and adapting activities to their needs. It means an intra-school program which involves every girl in the institution!¹

No program of physical education for girls is adequate without a variety of group team sports on the schedule each season. Girls, when left to their own resources, get little enough of such training and it is so valuable that efforts should be made to procure it for them. By all means the program should contain some out-of-door games and some of high organization, i.e., games calling for mental stimulation in learning rules, acquiring techniques and skills, and for a high grade of social reactions in relationships demanding a keen analysis of motives and intentions back of the movements of both opponents and team mates, with the need of appreciations and judgment for adapting one's own actions accordingly; this training to be for instantaneous reactions and above the purely emotional level.

The socializing values of team play must be acquired before high school days are over. The high school falling short of this part of a girl's education is grossly neglectful. Years of experience with college age convinces the author that it is too late in most cases to give these values at that age level.

The five most popular group sports with girls and women, according to Table I, are basketball, volleyball, baseball (modified), field hockey and soccer. The most used team sports are discussed in the material below.

Baseball (Softball, Kittenball).—For use in girls' programs baseball should be modified. Rules formulated specifically for girls by women authorities are available. "Kittenball" and softball are terms that are coming to displace the former cumbersome name of "baseball, modified" which necessarily came into existence to differentiate this type of

¹ Jay B. Nash, "Athletics for Girls," *North American Review*, January, 1927, pp. 99-114.

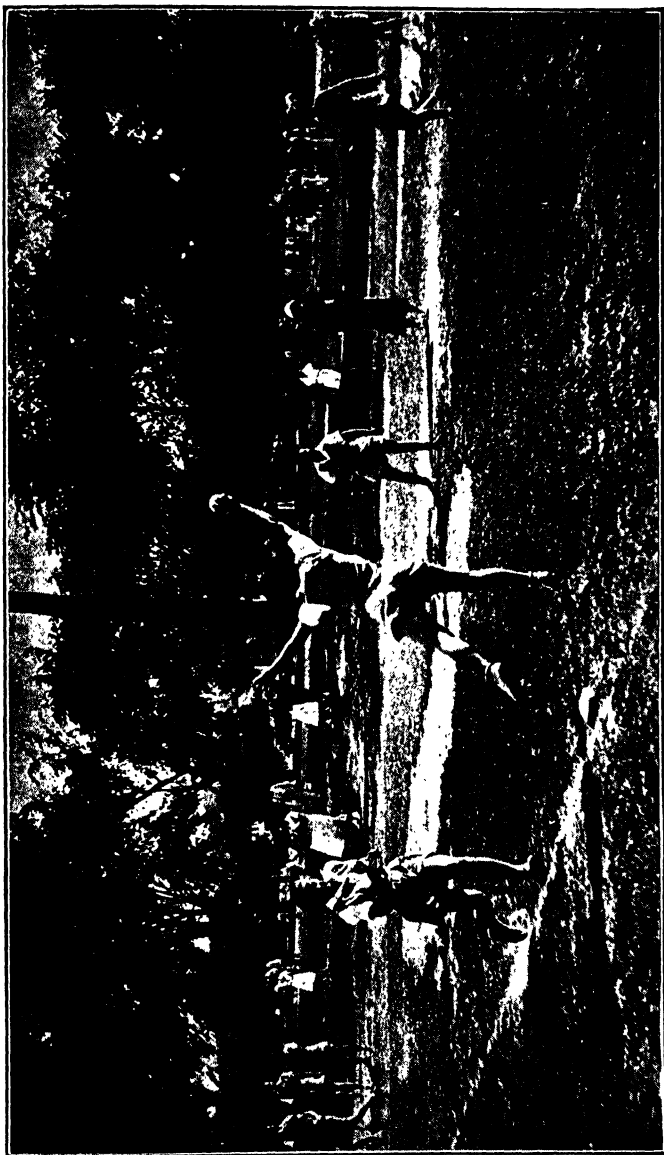


FIG. 1.—The great American game appeals to girls as well as boys. (Courtesy of the Department of Physical Education, Public Schools, Syracuse, New York.)

game from the regular league ball game. These games differ slightly from official baseball for girls which is preferable for use in educational situations.

Known as "kittenball" the game has recently taken the rural communities by storm, so much so that the enthusiasm of its followers has permitted much in the way of bad manners, rowdiness, inappropriate costuming, and emotional strain to be committed in its name. Played with proper attention to the amenities baseball is a splendid group game for girls. Why not observe the niceties of life and the appropriateness of occasions in sports as well as in any other activities? Of course, rowdy girls backed by rowdy followers tend to make rowdy sports. A properly qualified leader can give zest and fun to a sport, at the same time preventing rowdiness. If sporting goods houses and industrial and business firms persist in using this game for the exploitation of girls, as they have been doing for the past few summers in all parts of the country, the game will fall into disrepute. The game itself is a good one but for girls it should be supervised by women teachers and kept free of all taints of commercialization and exploitation with their accompanying evils.

Basketball and Its Variations.—Basketball is a strenuous game. It causes more "headaches" for physical education teachers and leaders of girls' activities than any other one sport because, through it, girls are so frequently exploited and, through the use of boys' rules instead of girls' and the use of men coaches instead of physical educators, their welfare is so frequently neglected. To many, the sport seems to be more important than the participant. However, under proper supervision and proper teaching, it is a splendid sport for those who are strong enough to stand it. There is no doubt about its popularity all over the country. J. Anna Norris, M.D., of the University of Minnesota, says:

The opportunity it offers for vigorous activity meets a demand for recreation of an adventurous type. . . . When played by girls' rules and under proper conditions, it is adapted for use by the girl or woman of average strength and vitality, provided she is physically sound.

Women's basketball is not a weak, emasculated form of men's basketball, but is a different game, just as indoor baseball is a different game from league baseball. The sooner the official women's rules become universally adopted for girls and women, the readier will be the recognition of the desirability of basketball for women.²

² "Basketball—Girls' Rules," *Child Health Magazine*, American Child Health Association, New York City, December, 1924.

It is a game that should not be played until the ninth grade at the earliest and probably then only with short quarters. There are many lead-up games which the junior high school girl and boy can play with much enjoyment and advantage developing fundamental skills for the day when they can play the regulation game. The most popular variation is captain ball, a fine preliminary game for junior high school age. It may be played with any number on a team from seven to thirteen or even more, depending upon the ingenuity of the teacher. The regulation game calls for thirteen players on a side.

Field Ball.—Originated by Louis R. Burnett, M.D., of Baltimore, field ball is a variation of basketball containing some of the elements of soccer and played on a soccer field, with two teams of eleven players each. It is more strenuous than soccer but it has the advantage over both hockey and soccer in that it does not require sticks as in hockey or heavy shoes as in soccer. It is a splendid cold weather game for it requires much running.³

Field Hockey.—Hockey is another game calling for much running and is played with eleven members on each team. The regulation field is the size of a football field but a smaller one may be used if necessary. The stick that is used is especially designed for this game. The ball is a cricket ball which is a little larger than a baseball.

This game is very popular in the women's colleges and preparatory schools, especially those of the East, and with small groups in many universities and coeducational colleges and in some high schools of the larger centers. It does not make an appeal to the large body of high school girls and college women. The small groups that do enjoy the game, however, are highly enthusiastic about it. To the author it has always seemed the most fascinating of all team games, exhilarating with its long runs in the open air, with the matching of wits and skill against eager opponents, and the sharing with ardent companions of the thrills of the siege and the excitement of the attack.

It is one of the few team sports that is popular with adult women in this country. Its greatest adult popularity occurs in the large city centers of the East, although Chicago and Milwaukee support active clubs. It seems to take a large population center or a university with a large physical education staff to furnish enough enthusiasts who have the time and means available to carry on such an activity. As a game for adults it is splendid but as yet it is a game only for the privileged class

³ Women's Rules Committee, *Official Soccer Speedball and Field Ball Guide*, No. 116R. American Sports Publishing Company, New York, p. 55.

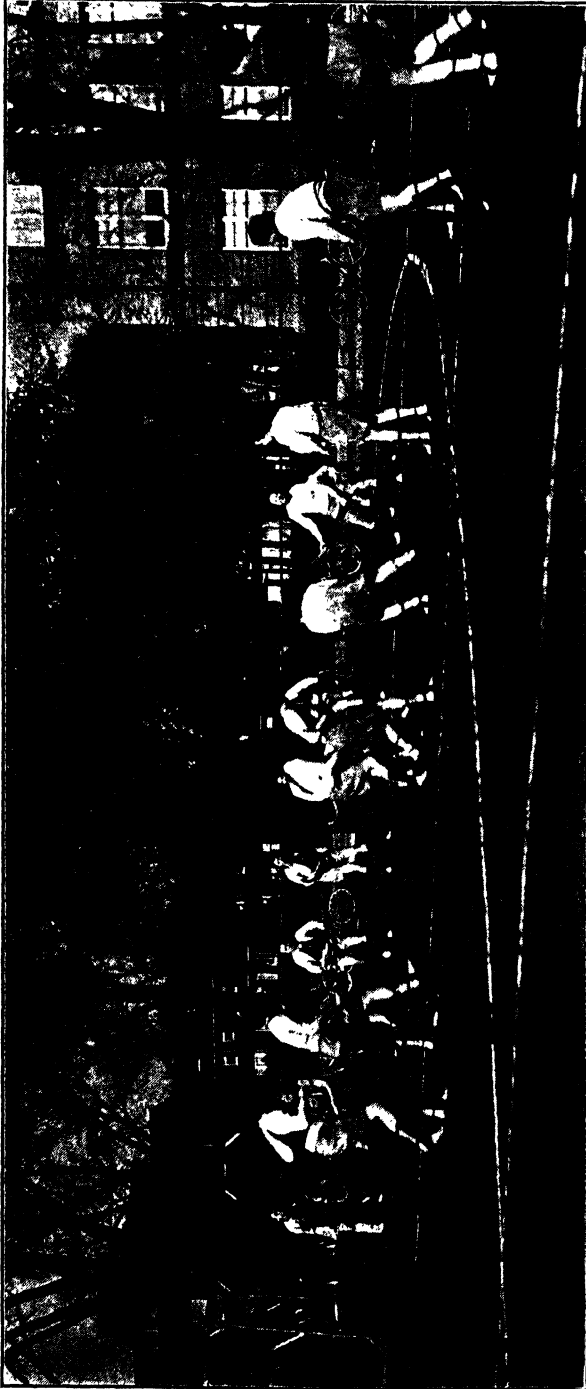


FIG. 2.—A serious threat during a field hockey game. (Courtesy of the Camera Club and the Department of Physical Education for Girls, Oak Park and River Forest Township High School, Oak Park, Illinois.)

since the equipment is expensive (in comparison with that for other team games), and public recreational movements have not yet seen fit to furnish hockey fields as they do tennis courts, baseball diamonds and golf links for athletic-minded adults.⁴

Ice Hockey.—Ice hockey is a game played on ice skates and with eleven players on a team, each armed with a stick by which she propels a flat disc towards her opponent's goal. It is naturally a game for expert skaters only. Although not claiming many devotees among girls and women, it might well be promoted in certain climates provided it is played according to women's rules. A woman leader in this game says:

It is a fascinating, practical, and safe winter activity for girls. One of its advantages is that it can be played on an indoor rink. . . . With the elimination of body checking and other rough play, the game loses the dangers which accompany it when played according to men's rules. . . . The use of some type of boundary other than side boards also retards the speed and lessens the hazards of the game where players are not sufficiently skilled in skating, to avoid injuring themselves on the boards or where endurance is lacking.⁵

Lacrosse.—Lacrosse is a game of simple rules having the elements of both basketball and hockey. Of Indian origin, it is the oldest game in America. It calls for ten players to a team and may be played on any field large enough for field hockey or soccer. The equipment is for the most part imported but with increased popularity of the game there is appearing a decrease in the price of equipment.

The game consists of catching and passing a ball by means of a stick with a cradle of netting which was named *La Crosse* by the French colonists because of its resemblance to a bishop's crozier. Since the ball is thrown and not propelled along the ground as in hockey this game is the better choice of the two for those schools which do not have a smooth, even, playing surface.⁶

It is growing in popularity with American women, spreading rapidly in the East. It is a splendid cold weather game and is also an ideal game for physical conditioning for it "develops speed and endurance,

⁴ The American Field Hockey Association sponsors clubs and tournaments in different parts of the country. For further information address the Corresponding Secretary, Miss Marion Maxim, 66 Clyde Street, Newtonville, Massachusetts.

⁵ Harriet M. Brown, "The Game of Ice Hockey," *Journal of Health and Physical Education*, January, 1935, p. 28.

⁶ Martha Gable, "How About Lacrosse for Girls?", *Mind and Body*, March, 1935, p. 309.

along with a correct, upright running position with head, chest and arms held high in practically every movement." ⁷

Soccer.—Soccer is an out-of-doors game which can be readily learned so that it makes a quick appeal to the type of player whose interest cannot be held if the techniques of the game involve too much practice; most girls, as well as some boys, are of this type. Although an off-shoot of football the game is well adapted, through its modifications, to girl's play.

It can be played in old clothes, provided they permit freedom for running and kicking, and any old stout shoes. It calls for a fairly large field and a soccer ball. It consists of a great deal of running and for that reason is a splendid conditioner for those who do not have to be restricted in their play.

This game should not be used for the first two years of junior high school although there are variations that might well be used for those ages. It is an excellent forerunner for field hockey if used in the ninth grade on. It is considered a safer game for younger girls and it is much less expensive in equipment.

Soccer Baseball.—As its name implies soccer baseball is a variation of the games of soccer and baseball. It is readily learned and is great fun for all ages. It is a game pupils call for, year after year, once they have become acquainted with it. It requires a baseball diamond and a soccer ball. College girls have been playing this game for a number of years.

Speedball.—Speedball is a game similar to soccer. It can be quickly learned and enjoyed. It is a combination of soccer and basketball with an appeal to the average person as well as to the athlete. For that reason it is becoming increasingly popular since its origin in 1921.⁸ Although planned for a fall game for college men who were not interested in playing football, it has been adopted enthusiastically by girls and women. It interests those who cannot afford the more expensive equipment of hockey and lacrosse and those who do not care enough for sports to work at the techniques necessary in many other games. In 1930 this game was being played by girls in 31 per cent of the high schools of our large cities and to some small extent in all types of educational organizations from the small town high schools to the large university. (Table I, p. 22.)

⁷ Gable, *loc. cit.*

⁸ Originated by Elmer D. Mitchell at the University of Michigan.

Volleyball.—Volleyball is a game ranking high in recreational qualities since it has excellent carry-over value. It is great fun for mixed groups at picnics and impromptu gatherings. The game may be varied to suit the local situation as to number of players and size of court but there are official rules for girls and women for those interested in the regulation game. According to Table I it almost ties with basketball for first place in popularity among all age levels. It is as popular as basketball in the normal schools, the Y.W.C.A.'s and the high schools of cities of over 300,000 population. It is the least popular in the women's colleges. (Table I, p. 22.) Basketball should not be allowed to push this game aside. In schools that can support but one group team game for its girls that game should be volleyball rather than basketball, since it is the more suitable for a large range of types of students and can be played more safely by a larger number.

Although much poor volleyball is played in our schools, and enjoyably so even at that, it is a game that can challenge even the expert athletes if the strategy of the game and the high points of its skill are properly presented to them.

It is a game of American origin dating from 1895, but it was little known until it was introduced to millions during the World War. Its advantages over other team sports are that it is safer, it requires less space per player, the cost of equipment per player is very low, and it gives excellent posture training, its movements using uplifted chest, flattened shoulder blade, and upright head with high-reaching arm movements.

INDIVIDUAL TEAM SPORTS

Since the individual team sports have a better carry over into adult life than do the group team sports, they should be given serious attention in the school program. The group team games are essential in the formative years for their training in the present and even though the actual games themselves may not be carried into adult life, the socializing direction acquired through them remains effective. The sports that will be carried on in adult life, however, should also have their skill foundations laid in youth, otherwise the beginnings are apt never to be undertaken and this form of life's enrichment may be missed altogether. The carry-over value is not the only value of these sports, however. They, too, offer effective educational elements for the present, although not so dynamic in their social implications as the group sports. These are, moreover, the only physical activities that appeal to some

types of people and were it not for their inclusion in the program physical education would be a bugbear to many who otherwise would miss entirely its inherent values. Also these sports are excellent for mixed classes of boys and girls, thus offering opportunities for valuable social experiences in sports situations.

It is easy to advise the inclusion of individual sports in the physical education program but there is nothing more difficult in the way of organization and administration because these sports call for larger amounts of space per student, for fewer students per teacher, and for more expense in equipment per student than do team games. These problems are almost insurmountable in some types of organizations. Also it takes very careful teaching to promote successfully a program of individual sports so that it will appeal to the mass of students. And after the mass instruction it takes an unusual amount of imagination and drive and organization ability to carry the practice over into the playing situation, especially so when equipment and space are usually inadequate for the number of students. The teacher is the keynote to the whole situation. If the school system has the right kind of a physical education teacher much can be done in individual sports. An appraisal of the commonly used individual sports follows.

Badminton and Its Variations.—Badminton⁹ is a game played with a long slender-shafted racket and a shuttlecock made of cork or rubber and feathers. The court is somewhat similar to a tennis court though about one-half its size. It is a game easy for the novice to pick up and, although most people will not become champion players, they will be sure to find much pleasure in it.¹⁰ It is becoming increasingly popular in this country. A member of the Detroit Cricket Club writes enthusiastically of the sport:

There is something about the game, its fast rallies, its lobs, its smashes, its delicate drop shots that hug the net, its shots that are impossible but somehow are achieved, that finds its way into the sport lover's system never to be eradicated. The singles game with its desperate "gets"; the doubles game with both partners working fast and furiously, congratulating each other on points gained, consoling on points lost; this is the reward of those who study Badminton and put into it the work that a high grade sport demands of one who would become proficient. But the dub enjoys it too. No matter how poor a player one is, or how young, or how old, against an opponent some-

⁹ Pronounced with accent on first syllable.

¹⁰ E. Hedges, "Hello Badminton," *The Journal of Health and Physical Education*, November, 1930, p. 34.

where near one's own ability, the rallies are frequent and the exercise and bodily benefit undeniable.¹¹

Although the regulation game is played in singles and doubles, as is tennis, there are many variations. It may be used as a group game with as many on a side as the available space will accommodate.

It is a fine game for indoors or out, for old or for young. With its possibilities for home-made substitutes for the regulation more expensive equipment there is no excuse for any school not offering the delights of this game to its students.

Aerial Darts.—Aerial darts is a variation of badminton using wooden paddles as substitutes for rackets. It has become a very popular game in many high schools and colleges.

Paddle Badminton.—Another modification of badminton is paddle badminton, which substitutes not only paddles for rackets but a ball for the shuttlecock. It uses a ball, such as is used for the game of "jacks," tied in a cloth with the cloth arranged for a tail. In this variation the game follows volleyball rules rather than official badminton rules.¹² This is an inexpensive game, one that will serve a large class on any gymnasium floor.

Fencing.—It is doubtful if a place should be given to fencing in the public schools. Although it is an excellent sport it is limited in the size of the group it will attract in the adult recreation field. This is due not only to the expense of the equipment but also to the nature of the activity itself, which does not make a wide appeal as a recreational activity. An organization that offers a large variety of sports in its program should by all means include fencing for the type of girl who will enjoy it. It offers motor-skill training quite different from that of most other sports and for that reason makes a contribution to the sports field that is peculiarly its own.



FIG. 3.—*Beginners with the foils. Fencing class at Stephens College. (Courtesy of Miss Wilma Haynes, Director of Physical Education.)*

¹¹ Hedges, *loc. cit.*

¹² Gwendolyn Drew, "Paddle Badminton," *Journal of Health and Physical Education*, April, 1935, p. 43.

Handball.—A game that is now coming into its own for girls and women is handball. It has achieved enough popularity to receive notice in the annual *Athletic Handbook*.¹³ It will be as strenuous or as moderate as the players themselves can or will make it. It calls for a blank, smooth wall 16 feet high by 20 feet wide. This requirement alone will limit opportunities for the game since few schools offer such facilities. It will probably never be as popular with women as with men. Men who play the game and achieve skill in it claim that it is splendid for developing "balance, speed, agility, timed starting and stopping, accuracy, and endurance."¹⁴

Horseshoe Pitching.—Although horseshoe pitching has little following in the public schools it was found to be used by 34 per cent of the universities in 1930. (Table I, p. 22.) It is a good game for restricted classes. Once mastered the sport can be used with pleasure especially at summer resorts and in camps. It is a popular game in small towns, especially in the Middle West and certain sections of the South. For girls and women a lighter shoe should be used than for boys and men.

Shuffleboard.—Shuffleboard is a game that has long been popular on shipboard, has recently become popular at pleasure resorts and now is coming into its own in the school physical education program. It is used most successfully in many schools in combination with ping pong in classes of restricted cases. It is also a popular game for mixed recreation. The equipment can readily be made at local workshops and so may be procured inexpensively. The targets are chalked or painted on a smooth surface: sidewalk, driveway, gymnasium floor, or any other available space.

Tennis and Its Variations.—Tennis is invariably mentioned whenever the most popular sports are being listed. Table I shows it to hold fourth place in popularity among all students. Groups of adults would no doubt rate it nearer first as it is rich in adult recreational values since it can be enjoyed from early adolescence to middle age. In a few cases of robust physique it is enjoyed even beyond that age limit. The King of Sweden, in his seventies, is an ardent devotee of the game.

Proper facilities, properly taken care of, are expensive, but recreational movements are demanding tennis courts. Most of the cities of

¹³ Women's Rules and Editorial Committee, *The Athletic Handbook*, Spalding's Athletic Library, No. 115R, American Sports Publishing Company, New York, 1936-37.

¹⁴ Staff of the Department of Intramural Sports, University of Michigan, *Sports for Recreation*. Copyright, 1936, A. S. Barnes and Company, New York, p. 190.

fifty thousand population or over furnish them today for public use, and most of the high schools of the larger cities furnish them also, as do practically all colleges and universities. However, the number of courts furnished is, as a rule, most inadequate in proportion to the number of people who desire to play. American institutions still think too much in terms of play space for the few only, and America, a democracy, is ruled in its sports realm by traditions of aristocracy. Since this royal sport of tennis is closed to the great mass of people because of its expense, the masses need not be neglected altogether now that there are so



FIG. 4.—*Beginners at tennis.* (Courtesy of The Camera Club and the Department of Physical Education for Girls, Oak Park and River Forest Township High School, Oak Park, Illinois.)

many inexpensive variations of the game. Some of these variations are listed below.

Deck Tennis (Ring Tennis, "Quoitennis" or Tenniquoits).—Universities and colleges are finding deck tennis a highly enjoyable game. It should be a splendid game for high schools and Y.W.C.A.'s since the equipment is not expensive and in certain variations of the game large numbers can be accommodated in a small space. It has excellent carry-over value for it can be learned in a short time, can be played in places of varying sizes and shapes (as for example the many queer-shaped courts found on shipboard where the game is universally popular) and played with all manner of makeshift equipment. It is an excellent game for mixed groups.

Paddle Tennis.—Paddle tennis is a sport that merits much more attention than it receives. Briefly it is tennis in miniature. The court is about one-fourth the size of a tennis court, the net much lower, the racket merely a wooden paddle with a regulation tennis racket handle, and the ball an inexpensive rubber one. The game is the same as tennis as to rules and methods of handling equipment. Its charm lies in the fact that it is not so strenuous as the regular game, covering only one-fourth of the space. This makes it a fine game for those tennis enthusiasts who find they can keep up a strenuous pace no longer and for those beginners who need to work on the fundamentals of the skills and to become familiar with the game on a small scale before venturing on a regulation court.

From an administrative point of view it is a splendid game since it will take care of four times as many pupils in the same space as will the regulation game and the equipment is much less expensive.

Sidewalk Tennis.—Sidewalk tennis is a variation of tennis which is played in a small space, without a net and using the hand for a racket. It is readily adapted to stretches of cement walks or driveways, hence the name. The sidewalk plot is marked off into four courts resembling a regulation court but of any desired dimensions. The possibilities of this game for large classes are interesting.

Table Tennis (Ping Pong).—Ping pong is an excellent recreational activity. When played by experts it is a game of skill. Like so many other individual games it is strenuous when played by strenuous players, but when played by persons who do not have much energy to put into it, it is a quiet game and may be used for restricted cases. In either event it is a game of excellent recreational value.

In every school there are students who are physically incapacitated to enter the regular sports tournaments and they are, to that extent, school "outcasts." Ping pong is an excellent activity to offer for their share in the sports program. It gives these boys and girls a part in the fun and a chance to play for their group. They thus feel that they "belong" and so they are newly evaluated and are happy.

Tether Tennis (Tether Ball).—Tether tennis is a good game to train children to handle tennis rackets. It requires but little space, a twelve foot circle and a pole ten feet above ground. Eight courts take up no more space than one tennis court. As the ball is fastened to a cord at the top of the pole no running space is necessary. This is also an excellent carry-over game for it makes a fine "back yard" sport for a small space with no fear of balls flying wild to do damage. Wichita,

Kansas, uses this game effectively in the grades with long rows of poles set out on the various playgrounds.

INDIVIDUAL SPORTS

Individual sports have an advantage over all others in that they can be engaged in by the individual alone. Under certain conditions hiking calls for trails; riding, for bridle paths; swimming, for a pool; skating, for a rink; but aside from these considerations one needs only his equipment, the right mood, and free time for the enjoyment of the activities. Although these sports do not preclude a companion yet, when companionship fails, the pleasure of the activity itself still awaits one. For such pleasures, everyone should be trained in the skills of some of these activities for they are rich in recreational values.

A survey of the recreational activities of the graduates of Stephens College ¹⁵ gave a 77.6 per cent report showing that the activities most enjoyed after college are:

Swimming	22.6%	Golf	13.3%	Tennis	10.4%
Walking	14.5%	Hiking	11.0%	Dancing	5.8%

Willis ¹⁶ reports other studies naming swimming, hiking, and tennis as the high ranking activities for after-college recreation. Life is organized in most places today so that it is easy to find golf links, tennis courts, wooded trails, and swimming pools, and more and more it is becoming easier to find skating rinks, bicycle paths, archery ranges, and ping pong tables.

Although these individual sports rank high in recreational value they do not offer the social training of the team sports and for that reason should not make up the entire physical education program of any one student.

Archery.—Archery is a sport for all types and all ages, yet an expensive sport compared to others; at least, compared to other sports for girls. This is due to the necessity of frequent replacements of arrows and target faces. Repairs to backstops in indoor ranges run into a considerable item and in many institutions archery must be an indoor sport because of local weather conditions.

¹⁵ Wilma Haynes, "After College What?" *Research Quarterly*, March, 1931, p. 215.

¹⁶ Edna Willis, "The Comparative Values of the Different Phases of Physical Education Activity Program," *Paper* read before Conference of Midwest College Directors, Wichita, March, 1933.

With proper safeguards and with careful selection of space to be used for the range and with sufficient funds to purchase, or have made locally, enough bows, arrows, and targets to keep a class busy a program of physical education will be greatly enriched by the inclusion of this sport. It is now in use in many high schools. Colleges have been using it for a number of years. Like swimming, field hockey, and track and field, it has its greatest popularity in the women's colleges. (Table I, p. 22.)

Archery is all too frequently thought of in the educational field as an activity for persons restricted in their physical education work because of physical disability. It is a splendid sport for posture training and for

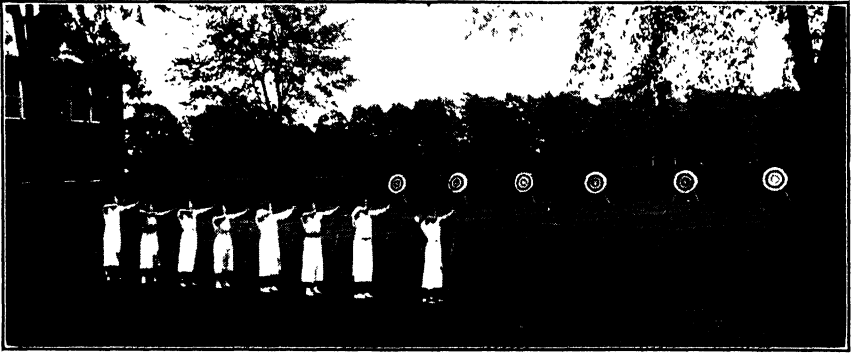


FIG. 5.—Archery at Wellesley College: the team that won the Eastern District Intercollegiate Telegraphic Meet, spring of 1936. (Courtesy of Dr. Ruth Elliot, Director of the Department of Hygiene.)

people who cannot engage in strenuous exercise, yet it is also a splendid recreational activity for all since it offers a real challenge to the best of sportsmen. Those who wish to make of it something more strenuous than the usual target shooting will find interest in archery-golf and roving and in various novelty shoots which a survey of the literature of the sport will bring to light.

Archery should not be offered unless there is a teacher in charge who is trained in its techniques and in the care of the equipment. It is a dangerous game to offer young children without close supervision. The Washington State Department of Education suggests that darts be used as a substitute.

Bowling.—Normal schools engage in bowling more than do any other educational groups according to Table I; 50 per cent of these

schools use this sport. It is a game that can be indulged in for adult recreation in almost any community. The social onus connected with many bowling alleys can be removed by careful organization of bowling clubs and reservations for exclusive use at stated periods. Reduced student rates are usually available. Since it is one of the few indoor recreational activities so universally available, the schools should teach the fundamentals of its skills and send girls out ready to enjoy this sport. It is quite popular with girls in business and industry.

Girls should use the lighter balls made for women. The severe wrist and finger strain and arm muscle soreness that may follow the use of men's balls can spoil the game completely even though the proprietor of an alley not equipped with women's balls will insist that the weight of the ball matters little.

Canoeing and Rowing.—Canoeing and rowing are being added to programs in many schools. Wellesley College has maintained crews for over thirty years and Smith College, since 1917, but only recently have high schools given this sport a place in their programs. The high schools of the San Francisco Bay region are a few of the schools offering these activities.¹⁷

In those communities where boating is available instruction should be offered as a safety measure. Beyond that it is excellent sport, highly developmental and recreational.

Golf.—As far as school work is concerned golf has its greatest following in the preparatory schools: (Table I, p. 22.) It can be used in adult life in practically all parts of the country. What small village does not today have its three or six or nine-hole golf course? It is a sport the fundamentals of which should be taught in our physical education programs. Because there is a publicized world of professional golf the teaching profession should not be deterred, feeling that the sport should not be taught except by a professional expert. This attitude retards its progress as a school subject. Although the instructor should be able to play a fair game the important thing is that she know how to organize for class work and how to give mass instruction. Professionals, accustomed only to private instruction, sometimes fail in a school situation.

It takes one skilled in the pedagogy of the group to handle such sports as golf in a school curriculum: it takes a teacher rather than a performer. No teacher who knows the art of teaching physical activities,

¹⁷ Lillian Schuette, "Crew for Girls," *Journal of Health and Physical Education*, May, 1933, p. 27.

who can for herself acquire moderate skill in the game, need be afraid to handle this sport in class. It should be taught in all high schools, for that is the grade level (if not earlier) to start this sport.

Golf is steadily on the increase in the secondary schools of the country. One school, of 460 surveyed, has its own course, three use municipal courses free of charge, and one procures a reduced fee for its pupils.¹⁸

Hiking.—Hiking is a splendid activity. It is too frequently overlooked or if not overlooked is commonly so poorly organized that it fails to contribute anything of value to the program. When properly organized and administered it can be a fine substitute for many activities



FIG. 6.—Class instruction in elementary golf at the University of Nebraska.

that cannot be offered by the school with inadequate facilities and equipment.¹⁹ It should not be looked upon merely as an emergency substitute, however, for there is a place and a need for it in every program. There is no activity that can compare with it for universal adult recreation for the simple reason that it requires no facilities, no equipment other than correct clothing, and no special weather conditions. It can be indulged in at any time of day or night, in all seasons of the

¹⁸ P. Roy Brammel, *Health Work and Physical Education*, Bulletin No. 17. Monograph No. 28, Department of Interior, Office of Education, Washington, 1932, p. 85.

¹⁹ Excellent suggestions for teaching a class in hiking is contained in Bonnie Cotteral, "Hiking—A Physical Education Activity," *Journal of Health and Physical Education*, April, 1931, p. 25.

year, in practically all climates, in all kinds of weather, in almost any place, and alone, or in small groups, or in crowds. So accessible a sport should be taught in such techniques that it is made enjoyable to all for all time.

The American Youth Hostels²⁰ are opening new opportunities for vacation hiking. Our schools would do well to offer courses in hiking preparing girls and women (boys and men, too,) to avail themselves of these opportunities with essential skills. Nature shows herself to hikers as to no others.

Individual Athletics.—For the grade schools team sports should be divided into their fundamental parts and these parts made up into all manner of interesting games and individual activities. The State Department of Physical Education of Pennsylvania offers a wide range of suggestions for such athletics for grades five to eight.²¹

The advantages of individual athletic activities are listed by the Wisconsin State Department of Instruction²² as follows:

- (a) The activities can be organized equally well in the instructional or play periods.
- (b) They can be practiced (when learned) by individual children themselves.
- (c) They can be engaged in by the individual or by a social group.
- (d) They give the best physical-training results because each individual is active all the time, or active in turn, and gets all the benefit of each activity.
- (e) The activities can be graded progressively to each pupil's needs or to the needs of small groups of pupils.
- (f) Each pupil can be taught or observed as an individual and each can progress as an individual.
- (g) The activities can be organized by the average teacher, anywhere, under any conditions, because of the great variety and difference in skill and facilities required.²³
- (h) Elements of games are used as individual events, providing opportunity for rapid development of strength and skill for the standard games. "Usually children between 9 and 14 years of age . . . do not have strength or skill to play games effectively

²⁰ Mabel Lee, "Gypsying By Way of American Youth Hostels," *Journal of Health and Physical Education*, April, 1936, p. 218.

²¹ *Course of Study in Health Instruction and Physical Education, Grades I-VIII, Bulletin 12B, Department of Public Instruction, Harrisburg, 1933, p. 157.*

²² J. T. Giles, *Individual Athletic Activities, State Department of Public Instruction, Madison, Wisconsin, 1925, p. 14.*

²³ Clark W. Hetherington, *School Program in Physical Education*, Copyright, 1922, by The World Book Company, Yonkers-on-Hudson, New York, p. 76.

in the school time available, or under school conditions, and get educational results out of them."²⁴

- (i) They present opportunity to set up definite standards of achievements by age periods.

Riding (Equitation).—The school that can offer training in riding is indeed fortunate for it is a superior form of exercise and one that is commonly used for recreation for all ages. It can readily be adapted to class instruction. Any school offering the activity should make careful inquiry as to the type of horses used and the protective insurance against

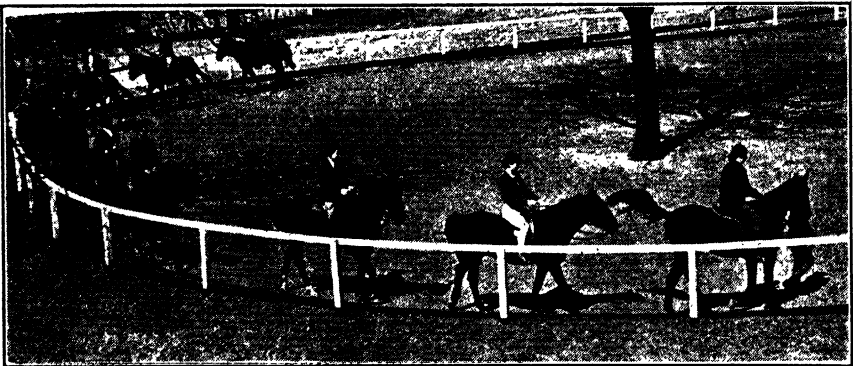


FIG. 6a.—*Beginners in the ring. A riding class at Stephens College.* (Courtesy of Miss Wilma Haynes, Director of the Department of Physical Education.)

accident that is carried by the owners in event the horses used are not the property of the school.

Swimming.—Although swimming ranks high in popularity for girls and women, a survey in the public schools of Kansas City in 1932 brought out the fact that, while 90 per cent of the senior high school boys can swim, only 72 per cent of the senior high school girls can swim.²⁵ Similar statistics no doubt hold true for many high schools all over the country. The place of swimming in the physical education program is well presented in the following:

While self-reliance is perhaps the outstanding contribution that the activity has to offer, there are other values which are far-reaching in their scope.

²⁴ Hetherington, *op. cit.*, p. 77.

²⁵ National Physical Education Service, *News Letter* No. 47. National Recreation Association, New York, February, 1932, p. 6.

Let no one doubt but that it takes plenty of courage to learn how to swim, for a beginner experiences new sensations of fear and loss of balance, of choking and of body pressure, the like of which he has not known before. In the course of overcoming these sensations and acquiring courage, he is likewise adding in a large measure to his capacity for persistence. All the while it has taken concentrated determination to overcome these new obstacles and to replace doubt with confidence and courage.

Again, we are very much concerned these days in learning to do things which we can continue to do for the rest of our lives, acts which will "carry over" continually. The common expression, "once a swimmer always a swimmer" expresses adequately the fact that once

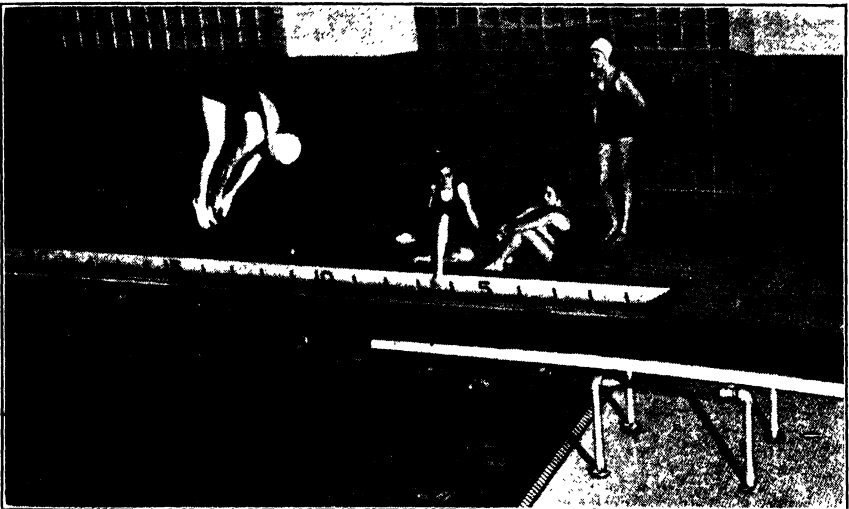


FIG. 7.—Most girls enjoy swimming and diving. (Photograph by courtesy of Dr. Gertrude Moulton, Director of the Department of Physical Education for Women, Oberlin College.)

swimming skills are developed the individual will seek the joy, exercise, and recreation of the water throughout the rest of his life.

In the final analysis, also, swimming may be said to be an excellent medium of self-expression; for the enjoyment of participation is spontaneous and keen, whether of the youngster paddling in the water, the adult taking regular exercise, or the performer training for the race or dive.²⁶

Track and Field.—The figures of Table I show track and field to rank eighth in popularity with students in general, being used most in the women's colleges and least in the normal schools.

²⁶ Staff of Department of Intramural Sports of the University of Michigan, *op. cit.*, pp. 308-9.

No doubt this sport finds its most ardent devotees among women in the East and in industrial groups rather than in school situations. The exploitation of women that is carried on in this country by certain men's organizations through track and field activities has given this form of sport for women an unfavorable status with many educators.

Its claim to a place on the girls' program on its own merits is not strong, however. During the past decade many high schools that had been sponsoring track and field for girls for years gave it up for team sports and other activities with greater carry-over recreational value. In 1934 the Illinois State League of High School Girls' Athletic Associations approved the following report from its Committee on Revision of Skill Tests:

In place of gymnastics and track skills we have substituted fundamental motor skills, which, we feel, cover in a more adequate manner the educational objectives. Since the trend in present day physical education is to eliminate track for girls from physical education programs, and since gymnastics, as such, are no longer an essential part of a program, we offer fundamental motor skills in their place.²⁷

The lack of conduct situations in track and field as compared to those arising in team sports places it low in the character formation class of sports; it offers splendid opportunities for attaining personal satisfaction from one's ability; its contribution to mento-motor development is great as it develops all types of fundamental skills; as an activity that will carry over for leisure time use, however, it is of little value.²⁸

Winter Sports.—Wherever conditions are favorable winter sports should be included in the physical education program and instruction in fundamental skills should be given. When properly conducted they are exhilarating, developmental, healthful, and highly recreational.

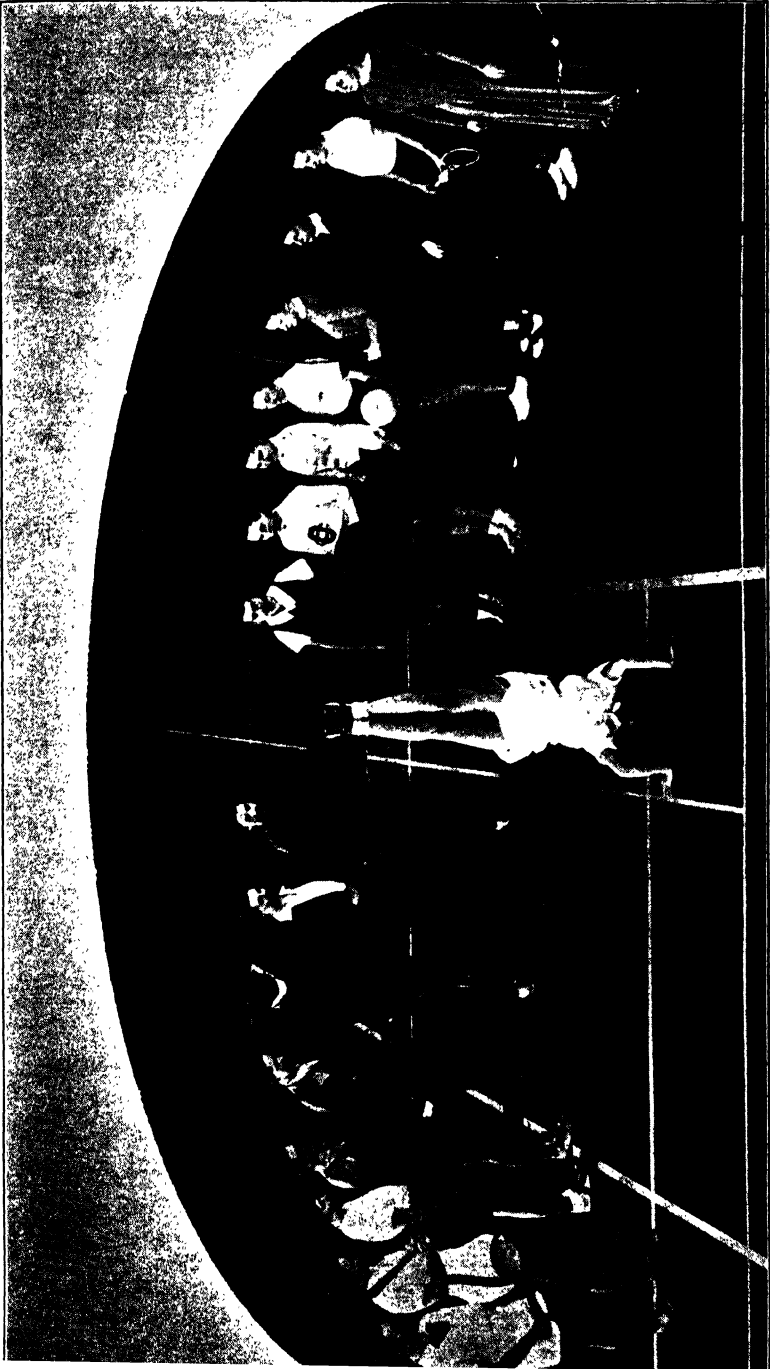
MISCELLANEOUS ACTIVITIES

Calisthenics (Formal Gymnastic Drills).—Except as they are purposely used for body-building there is little excuse today for formal drills in our schools although some use the excuse of the need of one teacher to handle large numbers at a time in a small space or of having to teach in the school room with seats in the way.

Calisthenics offer practically no opportunity for personality development. As a substitute for such handling of large numbers, a cam-

²⁷ Mary R. Wheeler, *Report of Committee on Revision of Skill Tests*, Illinois State League of High School Girls' Athletic Associations.

²⁸ Willis, *op. cit.*, p. 3-4.



3. 8.—A representation of a cross section of a varied physical education program for girls. (Courtesy of the Department of Physical Education for Women, Oberlin College.)

paign with the school superintendent is suggested in an effort to persuade him to give the physical education classes an equal chance with other classes to function normally with correct size of classes: it is entirely a matter of administrative functioning. That appeal unsuccessful, there still remains the opportunity of using well-trained student leader corps, dividing the too-large class into small units for practice on sports fundamentals, or, if the class cannot be so organized, choosing folk dancing, clogging, mass volleyball, and such activities, instead of calisthenics. For the school-room situation there are many games adapted for such circumstances by experts who are at home in this kind of emergency.

Clogging.—This activity is closely related to tap dancing and yet also related to folk and character dancing. The Committee of the American Physical Education Association on the study of dancing in the elementary schools says:

Clog dancing and tap dancing are valuable when the child becomes more interested in the play as distinguished from the art aspect of dancing. This change of interest occurs usually in the seventh or eighth grades. They also serve invaluable by making it possible for children whose rhythmic education has been neglected to enjoy a form which does not unduly strain their underdeveloped abilities to move freely and expressively. Unfortunately, in the minds of these children to move freely and expressively means to be "graceful."

In this latter capacity, clogging is an excellent entering wedge to the enjoyment of folk and natural dancing. Whenever it is taught it must measure up to criteria (including the musical) that are set up for dancing in general. Many of the jazz melodies so frequently used for tap-dancing would not meet these standards. It may be argued that the music of most clog dances has no great value. This is true. But this music has at least proven its fitness to survive "because of its folk quality or because of its merit and interest as a musical composition." Such tunes as "Dixie" and "Sally in Our Alley" fall into these categories.²⁹

Correctives.—The purpose of correctives is body freeing, consisting of general and local flexibility, freeing from wrong coordinations, and loosening of tight tissues; body building consisting of strengthening the big group muscles; and body poising to establish good posture and poise.³⁰

²⁹ Dorothy La Salle, "Report of the Committee on Dancing in Elementary Schools," *Research Quarterly* of the A.P.E.A., December, 1931, pp. 24-25.

³⁰ Lillian Drew, "Corrective Gymnastics in a Physical Education Program," *American Physical Education Review*, March, 1926, p. 726.

Since, as Drew points out, 80 per cent of college men and women have faulty body mechanics,³¹ the high school must face this fact and provide a proper education of the body. In fact the important place for correctives is in the lower grades. If all children would learn correct body mechanics while young, corrective departments would not be needed in the high school and college.

It is well to remember that many hours each day are spent in school rooms seated at desks, the tendency of all work being toward the forward position of the head and arms—the problem of fatigue must be recognized, as this tends to relaxation of the muscles and the production of poor postures, which are astonishingly prevalent. Many children are weak muscularly from other causes; the period of growth, where structures develop faster than muscles, is a particularly critical time in this connection for many children.

The present scheme of physical education in the schools is producing desirable results in the development of the individual. Powers of motor control, quick response to environment, good sportsmanship, and so on, are being established. The recreative values are most stimulating and effective. There is no doubt that the hygienic effect of the program is far-reaching. Circulation is improved, deep breathing induced and muscle tone increased. We have gone far, but not quite far enough. This system needs to be augmented by a definite program of corrective gymnastics, for there seems to be a lack of strength along corrective lines. Perhaps this is not to be wondered at when it is taken into consideration that the results first mentioned may be achieved with the large group in the gymnasium, while the corrective problem is a far more difficult one to meet, necessitating individualized instruction and supervision with a much smaller group. Unless the members of a class are, as we may say, uniform as to their needs for exercise, this cannot be effective for all to the same extent. Therefore, the desirability of making provision for a department of physical education, is apparent.³²

The recent national survey of secondary education brings out as one of its greatest criticisms the lack of effective programs of correction in physical education in our secondary schools.³³ The 460 schools surveyed were all supposed to be schools offering good physical education programs yet only 50 percent of them, taken as a whole, were offering corrective work.

³¹ Drew, *loc. cit.*

³² *Ibid.*, p. 723-4.

³³ P. Roy Brammell, *op. cit.*, p. 98.



FIG. 9.—High school correctives, Oak Park, Illinois. (Courtesy of Mrs. Florence Martin, Director of Physical Education for Girls.)

Of all junior high schools of the survey	70%	give correctives
" " high schools with enrollment over 1500	76%	" "
" " New England high schools of all sizes	70%	" "
" " Middle West " " " " "	40+	" "
" " South " " " " "	40+	" "
" " schools with enrollment of less than 300	26%	" "
" " four year high schools	34%	" " ⁸⁴

Of the corrective work that is offered, the survey found that "formal activities constitute a large part of the program for pupils enrolled in these courses."⁸⁵ The author reads between the lines of the report that much, of the little that is given, is inadequate. This of course accounts for the ineffectiveness of the body mechanics of the great mass of children leaving the public schools. All who have worked with college age know how difficult it is to bring about much permanent correction after high-school days. However, college girls who pass through a corrective department can learn something of proper body mechanics, acquire a little better body control, strengthen weak feet, weak abdominal walls, and weak backs, acquire a poised carriage that has more of charm than the old one, and learn something of how to relax. Why should students not leave our high schools already possessed of this knowledge and ability and body strength? As Ragsdale of Wisconsin says: "Posture and appearance, ease of movement, grace and poise are things worthwhile in themselves regardless of their contribution to any other phase of life."⁸⁶

Since principles of correct body mechanics should underlie all instruction in physical education activities and all teachers should themselves exhibit correct body mechanics, this work should be given only under the direction of teachers who have a thorough knowledge of anatomy, physiology, and kinesiology and an understanding of the fundamentals of social adjustments for "there is never a corrective problem that does not involve some feeling of personal inadequacy and anxiety."⁸⁷

Dancing.—Dancing makes an appeal that is different from that of other activities. It differs from sports in that, in the former, movement is the end in itself, while, in the latter, movement is the means

⁸⁴ Arrangement from Brammell, *op. cit.*, p. 28.

⁸⁵ *Ibid.*, p. 85.

⁸⁶ C. E. Ragsdale, "The Physical Aspect of a College Education," *Journal of Health and Physical Education*, October, 1932, p. 3.

⁸⁷ Harvey Zorbaugh, "Social Adjustment in Correctives," Proceedings, The College Physical Education Association meeting, 1935, condensed in *Digest of Physical Education, Health and Recreation*, March, 1936, p. 5.

to the end.³⁸ It differs also in that it offers rich opportunities for creative expression. Just as our gymnasium classes have in this generation progressed from the formal to the informal type of activity so dancing has changed from the old formalized drill at the bar, the exercises in the "five positions," and the meaningless dances, to the free natural movements of today.

G. Stanley Hall, the eminent psychologist, said:

Dancing is one of the best expressions of pure play and of the motor needs of youth. Perhaps, it is the most liberal of all forms of motor education. . . . Right dancing can cadence the very soul, give nervous poise and control, bring harmony between basal and finer muscles, and also between feeling and intellect, body and mind.³⁹

A panel discussion on the form of dancing known as the Modern Dance, held by the National Association of Directors of Physical Education for College Women, brought out the following:

It was agreed that the modern dance is characterized by the fact that it is an expression of the contemporary social and cultural scene with roots in or built upon the past which is its inheritance as an art. It was further agreed that it is a group style of which the movement of the body is itself the substance, and which is without set forms as to technique in that movement. It further involves a wider scope of idea or theme than has characterized its antecedent styles, admitting as suitable to be danced any and all things which lend themselves to statement in terms of human movement. In connection with the latter point, a dissenting opinion was expressed to the effect that so far as the college girl was concerned, tragedy was inappropriate because it lay outside the range of her understanding, and only those themes which related to gaiety and youth were admissible even to the modern dance. . . .

A strong plea was made for the dance as body building, for the perfecting of a fine instrument for movement and a conservation of health values as a primary purpose. An equally strong plea was made for the point of view that the dance must go beyond the physical plane inasmuch as it is an art, and that movement must be not only sound but beautiful. To this latter view was added the suggestion that the dance should have spiritual significance, a term which remained undefined.⁴⁰

³⁸ Gertrude Baker, Summary of Round Table Discussion on the Dance held at the meeting of Mid West College Directors Society, Madison, Wisconsin, April, 1935. (Unpublished paper.)

³⁹ G. Stanley Hall, *Youth*, D. Appleton and Company, New York, 1907, p. 89-90.

⁴⁰ *Proceedings* of the meeting, held at Oberlin College, April, 1934.

Dancing in the college field is far in advance of that most commonly offered in the high schools. In fact it is neglected completely in the majority of high schools.

Eugene Howe, noted physiologist of Wellesley College, reminds education that dancing is the one cultural possession "in whose study and cultivation physical education may claim a share."⁴¹ If for no other reason, the dance should have a place in all physical education programs.

Folk Dancing.—Folk dancing in its natural forms is an expression of social life but as we use it in our country, except in rare exceptions, it is an activity memorized and executed solely for the pleasure of the movements and the rhythm.

Folk dancing requires mental and physical ability, endurance, neuro-muscular control and a high degree of coordination and does not carry with it the psycho-physiological reactions as is claimed to be true of much of the modern forms of dancing. Boys and girls may be taught the same folk dances in separate groups then in mixed groups they may practice and enjoy them.⁴²

As children progress from the first through the twelfth grade they should be taught, as a common heritage, certain dances from the great wealth of folk dances of all nations.⁴³

Fundamentals or Appraisal Classes.—A few high schools and many college physical education departments feel the "curse of the intellectual" which in the words of Pitkin:

. . . rests heavily upon the common man. In school he does not learn how to feed himself, how to work on a job, how to avoid exhaustion, how to walk, run, breathe, rest, play,—in a word, how to do anything worth doing. He commits much to memory—never thereafter to use it . . . [He must be trained] in all of the energizing arts.⁴⁴

To counteract part of this "curse" they offer courses in fundamentals to all entering students. In such a course it is intended to develop the body through developing skills in the fundamentals of

⁴¹ "What Business Has the Modern Dance in Physical Education?", *Journal of Health and Physical Education*, March, 1937, p. 187.

⁴² Franklin C. Armstrong, "Socializing the Physical Education Program," *American Physical Education Review*, November, 1926, p. 1085.

⁴³ An excellent variety of folk dances is listed by grades in N. P. Neilson and Winifred Van Hagen, *Physical Education for Elementary Schools*, Copyright, 1930. A. S. Barnes and Company, Publishers, New York.

⁴⁴ *More Power To You*, Simon and Schuster, New York, 1933, p. 21.

body movements such as walking, standing, sitting, running, jumping, pushing, pulling, lifting, and climbing stairs. Into this work is woven the fundamentals of sports (throwing, catching, striking, dodging, etc.) with special attention to the relaxing of tense muscles and limbering up of tight joints. Added to this is a study of basic hygiene knowledges essential to physical well being.⁴⁵

Such a course is invaluable if given early in life: even as late as college age it may do some good; at least the student who has missed such training earlier might be given the benefit of the doubt and be granted a chance to make up for earlier educational deficiencies. Such a course is of value only in so far as the teacher is properly trained to give this work, knowing what she is about, and why.

Games.—The developmental possibilities of play are boundless. In spontaneous play, the child acquires valuable experiences. It tastes of success and failure. It takes risks and, experiencing the joys and sorrows of such ventures, it builds up judgment toward future action. It learns to lead and to be led, to give and to take. It learns unconsciously to adapt itself to the group for the sheer joy of belonging, of fitting in. It gradually senses the qualities of sportsmanship and when properly guided, sets them up as its standard. Similarly does it come to sense the existence of the moral code as is explained in the following:

[The Moral Code] constitutes the burden of the most moral teaching, and every person learns sooner or later that it is for his own good to conform in a large measure to the accepted customs and regulations of his group. He finds that the way in which he acts inevitably determines the way others act toward him, and that he can gain his own ends only by recognizing the rules of conduct followed by those about him.⁴⁶

Gymnastics.—The charge is made against gymnastics that it is too subjective to fill important educational needs. The old idea that formal gymnastics and calisthenics taught self-discipline, precision, accuracy, etc., which would carry over into other life situations has long been discredited by psychologists so that now there is no excuse for such activities in a curriculum except in so far as they may give positive enjoyment in themselves and in so far as they are used purposively for body building.

⁴⁵ For a guide to such a course see Ruth Glassow, *Fundamentals in Physical Education*, Lea and Febiger, Philadelphia, 1932.

⁴⁶ E. A. Kirkpatrick, *Fundamentals of Sociology*, Houghton Mifflin Company, Boston, 1916, p. 106.

Some educators quarrel with gymnastics on the grounds that it is not natural and, since the movements are invented, it therefore cannot function in the normal life of a child or adult. It is difficult to accept this argument wholly when one sees the almost religious fervor that carries great masses of people through years of participation in gymnastic drill which can be listed for them as recreational activity since they enter into it of their own volition and seem to get great emotional as well as physical satisfaction from it. This enthusiasm in America is found with certain racial groups in whom the needs of vigorous body development were implanted from a militaristic standpoint through generations in the fatherland. In the new world, there remains the seed of love of body development beyond the normal demands of American civilization. It is true, however, that here in America the entire educational philosophy seems to be turning people away from such invented activities so that gymnastics, calisthenics, and meaningless drills are gradually vanishing from our schools. During the growing periods, body building is important and in so far as gymnastics serve that purpose, it has a place in the school program.

Of the schools visited for the national survey of secondary education only 12½% of them give physical education work that is "primarily of the formal nature." In most of the other schools, however, some work in calisthenics is given. This is usually merely warming-up exercise at the beginning of the class period and usually of short duration.⁴⁷ The White House Conference on Child Health and Protection calls the attention of the educational world to the fact that the "trend is away from formal gymnastics."⁴⁸

The present tendency to omit gymnastics entirely from the grade and high school program seems to many a mistake⁴⁹ although its inclusion in the college program for girls may be undesirable at that age level. A poll of over twelve hundred women students in the University of Nebraska in 1931 found only twenty-five who wanted gymnastics offered in the physical education program. However, in 1937 large numbers voted enthusiastically to continue for a second semester a course in body mechanics which was planned primarily for development of body poise and carriage.

⁴⁷ Brammel, *op. cit.*, p. 85.

⁴⁸ *White House Conference*, 1930, The Century Company, New York, 1931, p. 177.

⁴⁹ C. H. McCloy of Iowa University offers a strong defense for gymnastics in "An Important Instinct Mechanism," *The Journal of Health and Physical Education*, March 1937, p. 147.

Marching.—Marching in the school program finds a reason for existence in the following statement:

Marching and tactics have a value and a place in the physical training program, as illustrated in fire drills and in the need for handling children in groups or masses in school or civic functions or in teaching physical-training activities. These needs are specific Tactics have no disciplinary value except in developing the ability to respond in mass and with precision to command, and they have these values only where such specific responses have a meaning in the school and the social life of the community.⁵⁰

Some people derive much pleasure from marching, through the emotional satisfaction that comes from doing things in unison, just as others derive pleasure from group singing. For such people marching is both an educational and recreational experience.

Orientation Courses in Physical Education.—Orientation courses are gradually finding their way into the college field along with similar courses in other subjects. Hughes⁵¹ of Columbia University points out that although physical education has always been listed as a laboratory subject along with the sciences, the sciences themselves do not exist solely as laboratory subject matter but in addition make use of lectures, discussions, reports, tests, text books, and examinations. Some colleges are requiring of all entering freshmen such a combination of class work and laboratory work in physical education in the hope of giving to the general student an appreciation of the value of physical education and of its place in relation to education as a whole, while at the same time they are attempting to give him skills in motor activities. In some colleges, hygiene, body care, and protection assume a large place in the course; in others discussions of fundamentals of bodily movements in every day skills loom large; in others appreciations of athletics from spectator point of view have a niche; and in still others principles of physical education, its objectives, aims, and attitudes about play take on major importance.

Courses in fundamentals of bodily movements should not be confused with orientation courses. The mere addition of discussions, notebook requirements, reports, and knowledge tests to an activity course does not of itself make of it an orientation course. All progressive

⁵⁰ Hetherington, *op. cit.*, p. 60.

⁵¹ William L. Hughes, Ph.D., "Orientation Courses in Physical Education for College Freshmen," *Journal of Health and Physical Education*, December, 1934, p. 22-24.

physical education work today uses supplementary guides in teaching. To be a truly orientation course, it must be "an explanatory course in physical education as a part of or supplementing the activity program [such as] will assist students in discovering interests and capacities."⁵²

Rest Classes.—Schools are increasingly coming to see the value of rest and relaxation in a physical education program and are holding pupils, who, physically handicapped, have heretofore been excused from department activities.

Rest rooms, equipped with couches and blankets, should be provided for pupils who are excused from gymnasium class work. These pupils may be excused because of cardiac conditions, severe mal-nutrition, anemia, recovery from a recent disease or operation. Absolute rest should be permitted in lieu of exercise. The rest room should be quiet. There should be no conversation, reading, or study. The room should be darkened and always under capable supervision. Pupils assigned to the rest room should be regularly weighed, measured, and examined not less than once a week by the medical examiner. The classroom teachers must be acquainted with the condition of these pupils so that proper allowance may be made in lesson assignments, stair climbing, and other pupil activities.⁵³

In some schools the privilege of assignment to rest classes is abused. Lazy pupils and their parents should not be allowed to brow-beat the school into granting this assignment to meet the child's whim when she would profit from some activity even in spite of her mental set against it. Doctors also should not be allowed to exploit rest classes in behalf of such patients. Used for pupils who really need such care and supervision, rest classes are a blessing but used as a means of escape from supposed unpleasant duties, they may be detrimental to character development.

Restricted Activities.—Every school has some pupils who must be safeguarded against too strenuous participation in physical exercise. Far too many schools excuse these pupils from all physical education giving them no help in their physical development. They need attention more than do the normal pupils: they should be the first to claim the teacher's time. In most of these cases it is not only unnecessary but unwise to do anything for the unfavorable condition itself, and it is

⁵² Hughes, *op. cit.*, p. 24.

⁵³ Frederick W. Maroney, "The Organization of a Physical and Health Education Program," *American Physical Education Review*, January, 1929, p. 5.

necessary to avoid doing anything that would aggravate or harm the condition; for example, physical education work makes no claim to attempt to cure heart defect, goiter, or an irritable appendix but it does prescribe activities that may be entered into without damage to an existent unfavorable condition. The physical education work prescribed for such cases is called "restricted" work. For such work there is a long list of mild activities to draw upon but each of these need to be checked against each pupil's particular case to be sure the prescription is proper, as for example, archery may be splendid for certain heart cases but unwise for goiter cases because of the pull on neck muscles. A physician familiar with the essentials of the activities is the only safe guide in making out such prescriptions.

The girl with a weak heart should be told what she may do with impunity in the way of physical exercise and she should be urged to do that much and to acquire an interest in the doing of it. On the other hand she must be taught what to avoid in the way of physical activity and why: then she will leave school knowing how to live wisely within her limitations instead of becoming a slave to them.

In serving the physically handicapped there should be used forms of activities which the girls can carry over into adult life. A weak heart can be safeguarded by permitting the girl to play ping pong just as well as by having her do light calisthenics. With ping pong she exercises her emotions as well as her muscles and incidentally acquires experience in an activity she may enjoy beyond school days. In the game she will find companionship and happy hours which will be worth far more than any physical exercise she might get out of calisthenics which, if she does do at all out of school, she will do in solitude.

The handicapped child needs information for protection; he also needs mechanical help and, beyond that, guidance into whatever field of recreation which falls within his capacities. Activities to draw from for restricted classes are: ten pins, basket goal, clock golf, golf croquet, hockey golf, tether ball, ping pong, shuffleboard, and quoits.

Many restricted cases need corrective work in addition to recreational activities since the handicap itself usually produces weak muscles because of the child's inability to engage in normal play and exercise. The body development and reconstruction needed by these pupils should be the serious concern of every school. Proper physical education for such children means for many of them the difference between success and failure in life.

Rhythms.—In a rhythms program the child learns to perform in rhythm to music simple movements such as:

Walk	Skip	Leap	3's	Waltz
Run	Slide	Polka	5's	Fox-trot
Hop	Gallop	Schottische	7's	

These he learns to do alone, then with another, then with a few others, then with a group. Such training will develop rhythmic sense, group-consciousness, physical poise, appreciation of movement in relation to line and space, appreciation of music, and free expression.⁵⁴

The great reaction against formalized subject matter and method that has characterized educational procedure in the recent past has nowhere been more in evidence than in the field of dancing. Essentially an activity of joy and freedom, dancing for little children so often in the past has been a mechanical procedure of "step and bend, step and bend, turn around and make a bow." The idea of skipping in any formation but a circle, or running in anything but eight counts, was considered disorderly, confused, and irregular. The impression doubtless was that if you once let children get out of a single file there would be grave danger of not being able to get them back. So the children marched into a circle; we condescended to tell them the name of the dance and its nationality, and then proceeded to initiate them into the complexities of pointing their right toe to the side, and shaking their left finger at their partner three times. We still have examples in some recent courses of study wherein the children, instead of *being* the Three Little Kittens Who Lost Their Mittens, do perfectly meaningless movements and poses to the rhyme as it is sung.

The modern program of dancing in the elementary schools has no place for such material, if it is to adhere consistently to the best educational doctrines. On the other hand, we who teach dancing to little children have in our field unlimited scope for the most meaningful experiencing, the most creative endeavor, the greatest opportunities for self-expression, if we would but learn *what* material to use and *how* to use it. . . .

The first group under rhythmic activities includes all the simple movements of locomotion and elevation with which the child is familiar. Most of them are used in activities of daily life and in athletic performance. . . .

The second division under dance activities is that large group of singing games and folk dances which at one time constituted our complete repertoire of dances for little children. Some of them, particularly the singing games, are still very good and hold meaning and enjoyment for the child.⁵⁵

⁵⁴ Dorothy La Salle, *op. cit.*, p. 10.

⁵⁵ *Ibid.*, pp. 32, 34 and 35.

Failure in the past to include dancing in the boys' program is a serious mistake which many schools are now correcting. This is an activity boys and girls can enjoy together at all ages if the teacher will make the right approach to allay the old idea that dancing is "sissy."

Social Dancing.—Since social dancing is so universally a recognized social activity it should be a required activity of the school physical education program and the teachers should assume the responsibility of instructing young people in the skill of correct dancing. This of course presupposes that all physical education teachers are given the proper techniques for this work in their teacher training course.

If it can be taught in mixed groups "the physical education department can make social behavior one of its most important objectives, and can broaden its program to this end."⁵⁶ It is surprising how few physical education teachers realize this opportunity as an educational medium. It is true that there still exists in some regions of the country such a prejudice against social dancing that it is entirely out of the question to incorporate it as an activity in the local program. And in still other regions where social dancing may not be frowned upon completely, it still is out of the question to recognize it in a school program because of prevailing prejudices against it in an educational situation. Yet in all our large school systems and colleges and universities and in many small ones as well, social dancing is recognized as a fitting form of mixed social recreation; in fact it is the only type of mixed social recreation indulged in, in many places. Surely this popular activity is a challenge to the physical education profession! A nationally known teacher of the dance says:

Of all the many educational aspects of dancing there is no one more important to the physical educator than the social or ballroom dance.

In the first place, it is the form of dancing most indulged in by all groups. It is an activity that carries over naturally into everyday life, and lasts well into middle age. It is at once social and recreational as well as rich in physical educational possibilities.

Social dancing presents a unique opportunity to teach good posture, rhythm, and grace in movements in the usual clothes and shoes of everyday life. If students are shown that they can wear clothes better and dance more attractively by having good posture, they are immediately interested. Because the natural walking step is the basic movement of

⁵⁶ Portia Mansfield, "Physical Education and Social Behavior," *Journal of Health and Physical Education*, January, 1935, p. 52.

the social dance, it offers an unrivaled opportunity for perfecting the qualities of this fundamental movement of everyday life. We cannot interest boys and girls in practicing their walking as such, but we can interest them in walking miles with good posture, rhythm, and line if we let them dance to their favorite fox trot.

Then, too, it is one of the few activities of this nature in which boys and girls must participate together. For this reason it offers an unequalled opportunity to facilitate normal adjustment between the sexes. The wise teacher can make the social dance class a very profitable lesson in how to be popular at a dance.⁵⁷

Miss Marsh calls our attention to the fact that it is usually the physical education teachers who are called upon to chaperon the school dances and they should take over an active attitude towards it. They should know the latest steps and proper dance positions accepted in the best circles of society and should instruct the students. She suggests that the teacher would do well to organize contests for best ballroom dancing judged on posture, rhythm, and style.⁵⁸

At the Horace Mann School of Columbia University pupils start their training in social dancing in the fifth grade. They are taught how to give parties and "how to conduct themselves in accordance with the best of present day social usage." Social dancing is recommended for grade school work for all schools of California also.

Story Plays and Mimetics.—These forms of exercise are used in the lower grades. They consist of exercises done in dramatization of some idea or story or in imitation of activities.

Stunts and Tumbling (Self-Testing Activities).—Stunts and tumbling furnish excellent activity for the upper grades. Although many schools teach them in the junior high school, there are many physical educators who feel that they are of doubtful value beyond the intermediate level. One writer declares that junior high girls would

⁵⁷ Agnes L. Marsh, "Social Dancing as a Project in Physical Education," *Journal of Health and Physical Education*, February, 1933, p. 28.

⁵⁸ In some schools, the deans of girls assist the physical education teachers in the management of school dances given on Friday afternoons after school hours in the gymnasium. These social mixers give excellent opportunity to teach manners and social usage to the pupils. An ideal situation in a public school is that at the Proviso Township High School at Maywood, Illinois. In its new building it has a large room specially designed as a social room. It has beautiful windows, an attractive fireplace, furniture of artistic design, and a good floor for dancing. It is in itself a gracious drawing room. The very atmosphere of the room is one conducive to good manners, culture, and refinement. The school dances are held here instead of in the gymnasium and because of the very nature of the room itself, these dances readily take on the grace of a fine social experience.

not be so awkward and self-conscious in learning tumbling if they had had training in flexibility, coordination and agility at stunts in the grades.⁵⁹

Neilson and Van Hagen⁶⁰ of California claim that these activities stimulate courage, self-confidence, and determination, "provide an excellent form of exercise, are easily organized for practice, are economical of space and equipment, and are adaptable to many age periods. . . . Because of their appeal they are continued during home play periods." They are also rich in pupil leadership opportunities and as used in Wichita, Kansas, before a physical education convention in 1933 may even be used to good advantage in mixed classes.

Teachers should be cognizant of the fact that there is an element of danger in these activities but accidents can be averted if no advanced steps are permitted until elementary steps are thoroughly learned.

Tap Dancing.—On the part of the parents and teachers there is much controversy over the value of tap dancing, but pupils seem to be of one mind on the subject for in all parts of the country it is universally popular. It appeals strongly to both children and adults. It is rather difficult, however, for many educators to shut their eyes to the unsavory company into which tap dancing falls in many situations. Then, too, they are not unaware of the many parents who exploit their children through the medium of tap dancing, permitting them to attend adult affairs and to keep late hours for the opportunity to "show-off," depriving them of childhood's rightful heritage to play hours in order to have sufficient time to practice at this skill so the "show-off" will the better satisfy the parents' selfish and dubious ambitions. Some educators are unwilling to lend their support to such violation of childhood's best interests by giving a child its start in this activity. Some parents, as well as educators, protest its inclusion in the school program.⁶¹ But by children and participating adults it is looked upon merely as a form of pleasurable and entertaining exercise because of its satisfying rhythms.

Miss Ballwebber of the University of Chicago feels that the opposition to it is "due to the fact that the greater number of those teaching tap dancing have not had the necessary training, [and therefore] dances

⁵⁹ Helen B. McNaughton and Mildred M. Waite, "A Stunt Contest for the Elementary Schools," *Journal of Health and Physical Education*, October, 1934, p. 24.

⁶⁰ *Op. cit.*, p. 47.

⁶¹ Mabel Lee, "Parents' Views Concerning the Program of Physical Education for Their Daughters," *Journal of Health and Physical Education*, April, 1933, pp. 12-15.

and teaching procedures have been taken over bodily from professional studios with no adaptation to the educational setting."⁶² Opponents maintain that tap dancing offers nothing in the education of the child that other forms of rhythm training cannot offer. Ted Shawn, the dancer, maintains that there is as much justification for teaching jazz in our music schools as for teaching tap dancing in our physical education departments.⁶³ Helen Frost, author of many books on dancing, says:

Is satisfaction of that primitive need of beating time enough to justify the giving of hours in a program of physical education to a practice of steps without relation to musical mood or interpretation? I believe it is not. The true educational approach lies through the character dance whether it be in the form of a clog, a jig, or a tap dance.⁶⁴

A special committee of the American Physical Education Association in studying rhythmical training for elementary schools made the following report:

At root, tap dancing and clog dancing are the same. Tap dancing as it is usually taught presupposes some knowledge of clogging and is therefore more advanced. For this reason it is not suitable for the elementary grades. Neither tap dancing nor clog dancing should be granted a very large time allotment in the dance program.⁶⁵

REFERENCES

Descriptions of the activities mentioned in this chapter and information regarding their facilities and equipment, methods of teaching them, and their playing rules are given in a wealth of books available in the literature of the profession.⁶⁶ Official rules of all games for girls and women are provided by the Women's Rules Editorial Committee of the Women's Athletic Section of the American Physical Edu-

⁶² Edith Ballwebber, "A Justification for Tap Dancing in the Physical Education Program," *Journal of Health and Physical Education*, May, 1934, p. 28.

⁶³ Quoted from a conversation with the author, March, 1934. Mr. Shawn fully explains his position on this matter in *Fundamentals of a Dance Education*, published by Haldemann-Julius, 1937.

⁶⁴ Helen Frost, *Tap, Caper and Clog*, Copyright, 1931, A. S. Barnes and Company, Publishers, New York.

⁶⁵ Dorothy La Salle, *op. cit.*, p. 24.

⁶⁶ For a complete bibliography of professional literature see C. H. McCloy, "Bibliography of Health and Physical Education," *Research Quarterly*, of A.P.E.A., October, 1932 and December, 1936.

ation Association.⁶⁷ Armed with these pamphlets, a good book on games of low organization and one or two books covering a wide range of recreational activities, a teacher is well supplied with guides for the conduct of any activities which she may choose to place in her program.

⁶⁷ Published in Spalding's Athletic Library by the American Sports Publishing Company, New York, for 25 cents a copy. The Handbook (No. 115R) contains many activities in the one pamphlet. The order numbers are as follows:

Archery, No. 129R	Ice Hockey, No. 124R
Badminton, No. 115R	La Crosse, No. 131R
Baseball, No. 121R	Shuffleboard, No. 115R
Basketball, No. 17R	Soccer, No. 116R
Bowling, No. 115R	Soccer Baseball, No. 115R
Captain Basketball, No. 115R	Speedball, No. 116R
Field Ball, No. 116R	Swimming, No. 125R
Field Hockey, No. 38R	Tennis and Variations, No. 129R
Golf, No. 129R	Track & Field, No. 115R
Handball, No. 115R	Volleyball, No. 115R
Horseshoe Pitching, No. 115R	Water Polo, No. 125R
	Winter Sports, No. 124R

Orders of four or more if sent to the publisher on a special blank will give special "bonus" royalties to the Women's Athletic Section which will increase its service to teachers. The blanks may be procured from Miss Marjorie Hillas, Teachers College, Columbia University, New York City.

CHAPTER III
PROBLEMS OF PROGRAM PLANNING

"There will be need of sports for the habits of the soul."

—PLATO.

PROGRAM PLANNING presents many problems which of necessity must be investigated in the interests of those for whom the program is devised. Some of these problems will be taken up here. Others, needing more lengthy discussion, will be discussed in later chapters.

PROGRAM NEEDS

The Physical Developmental Problem of the Machine Age.

—Since the machine age has, in so great a measure, robbed us of the economic need for big muscle activity we must look to the school to provide it for the sake of the proper physical growth and development of the child. Too little opportunity is given the average child in the home for that organic development and emotional training which comes only through vigorous bodily exercise. Thousands of children herded into cities by the new age are robbed of their natural play outlets, while countless others living in rural communities find family life so organized that long hours of spontaneous play with other children are now denied them. The schools must fill this need for play since play is developmental.

As the child matures and proper physical growth and development and normal emotional adjustments to life are attained, the adult finds ever present the need to keep fit both physically and emotionally for the emergencies of life. As the machine age has robbed the child of today of the home chores and simple group amusements which were physically and emotionally developmental to his pioneer forefathers so also has this new age robbed the adult of the physical exercise which he formerly pursued in wresting from life a living and of the emotional satisfactions which he gleaned from the comradeship of a rustic community. The schools and adult education movements must fill this need, and physical education plays a major role in this fulfillment.

To meet this deficiency of home life every child must be given much physical activity at school; not a few hours a week but a few hours daily. The programs that are now set up are entirely too limited in time allotment, facilities, and equipment to do more than scratch the surface of the child's basic needs, and this limitation will continue to exist as long as the time-old scholastic prejudice against the training of the physical continues to survive.

Ideal Program to Meet the Needs.—The White House Conference on Child Health and Protection asks the following physical education program for every school:

- a minimum of 30 minutes daily exercise of each pupil
- a program suited to the individual and determined by thorough physical examinations and classification of pupils based on
 - a. physical strength
 - physical endurance
 - physical skill
 - b. health
 - c. social training needs
 - d. mental health needs
 - e. emotional training needs
- a passing mark required for promotion and graduation credit allowed
- gymnasias and playgrounds available for after school hours
- adequate equipment and facilities paid for by Board of Education
- trained teachers, as regular members of faculty
- for girls, women teachers who will create and administer for them a program which conforms to the principles set forth by the Women's Division of the National Amateur Athletic Federation
- a program planned and administered with consideration given to sex, age, and stage of development
- athletics organized
 - first for the pupil
 - second for the so-called school spirit
 - third for the community interest
 - with inter-class competition stressed more than inter-school.¹

To put the above into effect the Conference said, "Legislation should put physical education into every school curriculum. What is most needed, however, is a maximum of civic consciousness and a minimum of legislation."²

Physical Education's Place in the Curriculum.—Superintendent Stoddard of Denver (formerly of Providence) asks that as great care be spent on the planning of the physical education program as on that of any other phase of school work.³ The Superintendent of Schools

¹ White House Conference on Child Health and Protection, *White House Conference 1930*, The Century Company, New York, 1931, pp. 218-19. Arrangement.

² *Ibid.*, p. 218.

³ A. J. Stoddard, "The Integration of Physical Education," *Journal of Health and Physical Education*, September, 1934, p. 5.

of Philadelphia defends physical education's right to a prominent place in the school curriculum saying:

If it should ever become my good fortune to build a curriculum for a school system of a newly organized community, a systematic program of physical and health education would be the center of the curriculum, around which the rest would be built. The health program would commence before school age with pre-school clinics and health advising in the homes. It would proceed by carefully graded stages throughout the school course. It would embrace physical exercises, including corrective work, health service, health education, recreation, and organized games and athletics, each feature varying from time to time in its proportion of attention according to the age of the children. Success in physical exercise, improvement in physique, knowledge of the facts and principles of hygiene, and the practice of good health habits, would be definite determinants in promotion from grade to grade. . . .

Such a program as outlined . . . will cost money . . . much more than the American people have yet seen fit to expend in the interest of the health of their children.⁴

HEALTH IMPLICATION OF A PHYSICAL EDUCATION PROGRAM

Aristotle names health as the most important of all bodily virtues!⁵ Physical education in accepting this corollary recognizes as of major importance the health implications of its program. Attention should be given to the considerations stated below if the physical education program is to be sound in its health significance.

Nerve Stability.—Modern life demands nerve stability and this must be developed during childhood, not by a few minutes of exercise each day but by hours of big muscle activity. "Nervous development means building power for action out of the latent inherited resources in the nervous system. This development is gained only through muscular exercise."⁶

Natural Growth.—In childhood big muscle activity is instinctive and thus serves as a safeguard since natural growth depends upon the vigorous use of the trunk and leg muscles. As other parts of the school program offer no chance for such activities, physical education

⁴ Edwin C. Broome, "Administration of the Health, Physical Education and Recreation Program," *Journal of Health and Physical Education*, April, 1930, p. 21.

⁵ Jean E. Chryssafis, "Aristotle on Physical Education," *Journal of Health and Physical Education*, January, 1930, p. 6.

⁶ Clark W. Hetherington, "Objectives of Physical Education," *The American Physical Education Review*, November, 1922, p. 409.

must offer opportunity in abundance to make up for the long hours of inactivity of other school work.

Strength and Vigor.—McCloy of Iowa asserts that scarcely twenty per cent of pupils have normal strength measuring by norms that are quite moderate in their requirements.⁷ Those who have less than the normal amount of muscular strength suffer from fatigue, muscular inefficiency that shows in lower level of general efficiency, susceptibility to infections, and lowered functioning of all the organic systems.⁸ Physical education should furnish adequate body building for school children so that they will attain normal muscular strength and keep it. Adults who neglect to maintain that muscular development which is the prerequisite to a youthful old age pay the penalty by losing that youth: it is hard to lose one's youth and gain it back again, but it is relatively easy to keep it.⁹

Heart Protection.—Between the ages of six and ten the heart is less than half the size it will be at adult age but the body weight is considerably more than half what it will be at adult weight. This means a greater heart task than at any other period of life and explains why these are called the "fatigue years," especially the years at the close of the period. Yet at this very age there is an increased desire for activity so that children must be safeguarded. There should be no vigorous competitive activities for these ages, only simple group games free from the stimulation of championships and free from all forms of social pressures. At seven years of age the heart is the smallest to body size of any age. To meet the needs of a fast growing body it has burden enough without the added burden which comes from the drive of competitive activities whether they be in the field of sports, arts, or academic studies. This nature-imposed heart task lasts for seven or eight years when at last the heart begins to catch up with body growth in other directions. According to Holt it grows from 120 *c. cm.* to 215 *c. cm.* in the thirteenth or fourteenth year.¹⁰

Chest Development.—During adolescence the chest circumference as compared to the height is relatively lower than at any other age level. Therefore exercises resulting in deepened breathing are necessary to make the chest flexible and as wide and deep as is possible with the

⁷ C. H. McCloy, "How About Some Muscle," *Journal of Health and Physical Education*, May, 1936, p. 302.

⁸ *Ibid.*, p. 303.

⁹ *Ibid.*

¹⁰ L. E. Holt, *Diseases of Infancy and Childhood*, D. Appleton and Company, New York, 1922, p. 565.

bony conformation that does exist. Vigorous exercise increases body demands for oxygen to meet the requirements of the resulting accelerated metabolism; that results in deepened breathing. Such a physiological deepened breathing is the natural way to produce chest development. Enforced deep breathing does not meet body needs and hence is unnatural and undesirable.

Height-Weight Relationship.—The ages of ten to fourteen give the maximum increase in height and weight. "As a rule tall boys and tall girls reach their periods of maximum adolescent stature earlier than do short ones," and "tall, well developed children are older physiologically than short children at any age during childhood."¹¹ The physical educator would do well to keep those facts in mind.

Metabolism.—The metabolism of the growing child is interfered with when, held in the school room for long hours at a time, he is deprived of his natural tendency to be active. Matthias points out that the curves of growth in height and weight are diminished during the first school year and can be explained by this retardation in metabolism which "the child suffers during those transition years from free romping to school life."¹² Physical education must give the child opportunity for the physical activity its body needs demand.

Will Training.—The training of the muscles in the attainment of body skills comes in a large measure through the exercising of the will so that muscular skill training is at the same time accompanied by will training. However, the mere contraction and expansion of muscles without thought and without effort to overcome poor coordinations and poor timing, is neither body nor will-training exercise.

Inner Developmental Demands.—During adolescence there is an inner development taking place which drains the child of energy so that there is no surplus available for physical expenditure beyond ordinary needs. During this period both the boy and girl should be guarded against all unnecessary physical exertion—by all means against too strenuous physical exercise and nervous tension. After puberty the girl should attempt no feats of strength. All her exercise should aim instead at skills.

The Healthy Personality.—Participation in games gratify the desire for leadership in many; it gives the timid child a chance to

¹¹ Bird T. Baldwin, *Physical Growth of Children*, University of Iowa Studies in Child Welfare, 1921.

¹² Eugen Matthias, *The Deeper Meaning of Physical Education*. Copyright, 1929, A. S. Barnes and Company, Publishers, New York, p. 42. (Translation by Carl Schrader.)

acquire self-confidence and "the aggressive get a chance to work off their bullying tendencies constructively."¹³ Helen McKinstry of Russell Sage College has said:

Self-confidence grows with achievement. In no other one phase of her education does a girl get the thrill from achievement, the reward of effort and the consciousness of power that comes in her acknowledged ability to control body, mind and emotions in sport. On such awakening of belief in herself, many an adolescent builds the courage and tenacity of purpose and self-respect to crown her girlhood with an efficient purposeful womanhood.¹⁴

The child who has plenty of opportunities to play and to meet success in its playing both in physical achievements and in social relationships is bound to be a happy child. The youth who has plenty of opportunities to practice cooperation with others and to subordinate himself to the common good *in situations of his own choosing*, with the situations safeguarded, however, by wise adult leadership so that he derives pleasure from sacrificing and the joys of good fellowship from cooperating—such a youth is bound later on to become a worthy member of his civic group. Competitive games give youth these opportunities.

Woman's Characteristic Conformation.—Many school men permit the physical education program for girls to be set up similar to that for boys seemingly unaware of the anatomical, physiological, and emotional differences between the two which call for a difference in program planning. Important particulars in which the girl differs from the boy are given below.

Greater Width of Pelvis.—The greater width of pelvis of the woman causes a greater deviation of the femur from the vertical so that there is a marked slant from the hip joint to the knee which places woman at a disadvantage in locomotion as compared to man. The greater the width, the less skillful is the person as concerns not only speed and endurance but also grace and efficiency of movement.

Physiological Periodic Functioning.—Menstruation produces a need for care in athletic participation so as not to cause an unfortunate modification of the menstrual flow.¹⁵ Miss Florence Somers of Toronto, Canada, says:

¹³ Playground and Recreation Association of America, *Recreation Bulletin* No. B2112, National Recreation Association, New York.

¹⁴ "The Value of Physical Education to Girlhood," *Women and Athletics*. Copyright, 1930, A. S. Barnes and Company, Publishers, New York, p. 25.

¹⁵ E. H. Arnold, "Athletics for Women," *Mind and Body*, January, 1924.

The care of the physical mechanism of the girl is so essential that risks which involve the possibility of strain are unwise. Severe strain of any kind is not, as a rule, regarded seriously enough. After intense or prolonged strain or fatigue, the organism seldom returns to its former strength and vitality.¹⁶

At this time especially, the girl should avoid the possibilities of colliding violently with others and of falling; uterine displacements may easily result from such accidents during the menstrual period. This means an avoidance at this time of all games of body contacts such as basketball. At no age during the normal school period does the girl reach full development of the pelvic organs so that care at this period must be the constant thought of those who supervise her physical activities.

Traditions of Womanhood Opposed to Normal Masculine Aggressiveness.—Because of the traditions of womanhood there is a need of activities that do not stress fighting features of certain physical activities. These lead to "the development of aggressive characteristics that add nothing of charm and usefulness, and [are] not in harmony with the best traditions of the sex."¹⁷ Frederick Rand Rogers says:

Competitive sports tend to develop behavior patterns which are contrary to feminine nature. Natural feminine health and attractiveness whether physical, emotional or social, certainly are impaired if not destroyed by the belligerent attitudes and competitive spirit the development of which intense activity inevitably fosters. One has only to postulate a female Roosevelt to reduce to absurdity the claims of those who foster the masculination of girls. Neither men nor any normal woman would embrace or willingly tolerate any tendency toward such an eventuality, yet competitive athletics will bring it about more surely than any other human behavior. . . . Games and sports for girls, by all means, of recreative types, which develop physical, psychic and social health and charm, but inter-school competition in basketball, baseball, track and field sports and Olympic competition of whatever nature: no!¹⁸

Other Physiological and Anatomical Differences.—A girl's relative strength compared to her weight is much lower than that of

¹⁶ Florence A. Somers, *Principles of Women's Athletics*, Copyright, 1930, A. S. Barnes and Company, Publishers, New York, p. 80.

¹⁷ J. Anna Norris, "Basketball—Girls' Rules," *Child Health Magazine*, American Child Health Association, New York, December, 1924.

¹⁸ Frederick Rand Rogers, "Olympics for Girls," *School and Society*, August, 1929, pp. 190-94.

a boy, the ratio being 54 to 87; her shorter leg length in relation to trunk length prevents her from running and jumping as easily as can a boy; her narrower shoulder width in relation to hip width gives her a limited endurance in athletics compared to that of a boy; and because of fewer red blood cells she does not absorb into her blood as much oxygen in a given time as does the boy and thus her blood can not remove as rapidly the by-products of fatigue.¹⁹

Differences in Instinctive Urges.—Boys and girls show widely differing preferences in physical activity. For example boys find a natural release for the urge for physical combat through combative sports but girls at no age level prefer such sports; although some girls do rate them high, this is not true of the great rank and file of girls as is shown in the research by McGhee and Crosswell.²⁰

Summary of Program Needs to Meet Health Requirement.—To sum up the general needs of the physical education program to meet the health requirement we should have:

1. For nervous stability: daily long periods of big muscle activity.
2. For correct muscle growth: daily vigorous exercise of big muscle groups supplemented by specific exercise of weak muscles.
3. For organic vigor: daily vigorous exercise of big muscle groups.
4. For heart protection: no competitive activities from ages six to ten stimulated by social pressure or pressure of championships.
5. For health of respiratory system: daily vigorous exercise out of doors which in itself will demand deepened breathing of fresh air. Formal breathing exercises should not be used as a substitute for this.
6. For classification: tall well developed children grouped with children of greater chronological age than themselves.
7. For general health attitudes: participation in physical activities demanding good health basis for success in attaining desirable standards of achievement.
8. For posture: daily vigorous exercise of trunk and abdominal muscles, especially of psoas and lumbar muscles.
9. For emotional health: plays and games calling for pupil leadership, courage, self-sacrifice, an interest in others, cooperation, chances for success.
10. For health personality: daily participation in plays and games.
11. For sex differences: boys and girls separated in most of their instructional physical education activities after onset of puberty; from twelve to twenty-six years, no exercises for girls calling for "extreme muscular

¹⁹ Donald A. Laird, "Why Aren't More Women Athletes," *Scientific American*, March, 1936, pp. 142-43.

²⁰ M. V. O'Shea, *The Child: His Nature and His Needs*, The Children's Foundation, New York, 1924, pp. 64-65.

strain upon the pelvic region"; for girls, exercises of skill—not of strength and none but girls' rules for competitive games. As the author has previously said:

Because of the particular physical conformation and emotional make-up of girls let us promote for them a . . . program free from emotionalism, free from intense competition, free from heart and pelvic strain, free from all attempts to imitate the boys. . . . Let us keep the girls out of spectator athletics. . . . Let us build for them a [program] founded on physical safeguards and moderation.²¹

CHARACTERISTICS OF VARIOUS AGE LEVELS

In planning the program in physical education recognition should be given to the developmental characteristics of the various ages. The activities selected should be adapted to the physical, mental, emotional, and social needs of the group. As the President of the National Recreation Association says: "Not only is it essential in all educational work to distinguish the different periods of growth, but it is necessary to observe, within each period, the budding-off place of each major instinct."²²

Elementary School Level.—On the whole, girls are older physiologically than boys at the elementary school level.²³ The physiological and psychological characteristics of this level may be outlined as follows:²⁴

Physiological Characteristics

A. Organic Development

1. Heart small for body size.
2. Pulse rate higher than in the adult.
3. Blood pressure lower than in the adult.
4. Metabolism greater than in the adult.
5. Temperature higher than in the adult.
6. Insufficiency of antitoxins in the blood compared to the adult.
7. Quick susceptibility to fatigue.
8. Abundance of energy leading to great activity.
9. Unable to endure strenuous exercise over long periods in spite of abundance of energy.

²¹ Mabel Lee, "A Consideration of the Fundamental Differences Between Boys and Girls as They Affect the Girls Program of Physical Education," *Education*, April, 1932, pp. 470-71.

²² Joseph Lee, *Play in Education*, Macmillan Company, New York, 1915, p. 66.

²³ Baldwin, *op. cit.*

²⁴ Suggested in part by Charles C. Cowell, "Plans and Specifications for Physical and Health Education in the Elementary Schools," *Research Quarterly* of the A.P.E.A., December, 1931, pp. 90-103.

B. Neuro-muscular development.

1. Strength rapidly increasing.
2. Finer motor coordinations developing slowly at first but rapidly at close of this period.
3. Lacking in muscular control.
4. Slow in making adjustments.
5. Experiences difficulty in localizing movements.
6. Reaction time slow.

*Psychological Characteristics***A. Before eight years of age.**

1. Has urge for activity beyond capacity.
2. Loves to imitate.
3. Strongly curious.
4. Individualistic and self assertive.
5. Credulous—believes everything.
6. Differentiates little between play and reality.
7. Restless and quickly tiring of things.
8. Desires large movements.
9. Has sheer joy in movement for its own sake.
10. Lacks self consciousness.
11. Developing sense of values, of praise, encouragement, happiness, success, failures, joy, security, and confidence.
12. Gradually learning to respect work and property of others.
13. Gradually learning to share and take turns with others.
14. Gradually desiring approval of mates.
15. Learning to express approval for mates.
16. Loves movement, color, and things that are alive.
17. Seeks sensory experiences.
18. Accepts suggestions readily.

B. Between eight and ten years of age.

1. Loves adventure, fighting, hunting and running.
2. Begins to be cooperative and gregarious.
3. Demands separation of sexes for many forms of play.
4. Takes an interest in skills.
5. Loves to tease and dare.
6. Ready to judge actions, make rules, and enforce them.
7. Ready to obey rules of games.
8. Realizes satisfactions of group success.
9. Seeks information of own initiative.
10. Ready to evaluate his own strength and weaknesses.
11. Ready to evaluate his own behavior and its effects upon others.

C. After ten years of age.

1. Interested in competition and skills.
2. Acquires respect for rules of games.
3. Ready to develop health habits for the sake of activity.
4. Interested in social organization and intellectual experiences.
5. Interested in actual life situations.
6. Ready to appreciate group success and failure.
7. Developing a social consciousness.
8. Ready for help from sympathetic adults.
9. Ready to submerge self for the sake of the group.
10. Developing appreciation of fundamentals of skills as motor coordinations are improving.

Secondary School Level.—This is an age which is at times difficult to understand perhaps because, in its varying moods and rapidly changing relations to life, it little understands itself. During the junior high school days the boy and girl are awkward and clumsy. The slow development of motor coordinations has not kept abreast with the rapid increase in strength. At this period much energy is being used for growth and there is great susceptibility to fatigue. During the later high school years motor coordinations develop rapidly and the earlier awkwardness disappears. As the girl matures physically she acquires a grace and poise that carry her so far beyond the "awkward age" that she seems to have "grown up" unbelievably within the space of two or three years. With this sudden maturing comes strength and endurance and a slowing down of growth.

Psychological Characteristics

1. Moody and given to day dreaming.
2. Attracted to opposite sex.
3. Unwilling on the whole to accept decisions of adults.
4. Intolerant of adult interference.
5. Desirous for adventure and excitement.
6. Susceptible to hero worship.
7. Becoming self-confident.
8. Emotions strong and little controlled.
9. Loyalties developing rapidly and strongly.
10. Love of belonging to clubs, gangs, and teams, asserting itself.

College Level.—Although many girls enter college as early as fifteen and sixteen years of age, the age of the college group is generally considered as running from seventeen to twenty-one years. Unless the younger girl is physiologically and psychologically old for her chronological age it is ill-advised to throw her into college environment early

even though she may have completed the secondary level of school subjects. Although there may not be a marked developmental difference between a college freshman and a high school senior there are profound differences between high school development and even the second-year college stage not to mention the college upper-class levels. The average upper-class college girl has acquired a high degree of self-confidence and emotional control compared to that which she possessed as a high school girl or a college freshman. She has developed a tendency towards specialization of interests and an ability to evaluate heroes and causes and groups thus tempering her loyalties.

ACTIVITY PREFERENCES OF VARIOUS AGE LEVELS

Man's natural activities are running, jumping, lifting, carrying, and throwing. Preferences for these show up clearly in various studies of thousands of children and adults.

Elementary School Level.—McGhee and Crowell's study of eighteen thousand children²⁵ shows that boys prefer rivalry games most of all games at all ages and girls prefer hide and seek games most of all games up to the fourteenth year and after that like rivalry games the most.

AGES AT WHICH VARIOUS GAMES ARE MOST POPULAR²⁶

	<i>Girls</i>			<i>Boys</i>		
	8½	years	of	10	years	of
	age	age	age	age	age	age
Running games						
Traditional games	12	"	"	9	"	"
Cooperative games	15	"	"	18	"	"
Rivalry games	18	"	"	16	"	"
Hide and seek games	10	"	"	9	"	"

A study²⁷ of 4,733 boys and 4,795 girls of nineteen grade schools in Detroit shows, for boys, waning interest in stunts, the dash, the rhythms, and increased interest in fistball, nine-court basketball, volleyball, and social dancing, i.e., fox trot and waltz; and, for girls, waning interest in squad games, stunts, playing catch, rope skipping, rhythm and relays, and increased interest in fistball, dash and throw, nine-court basketball, and volleyball.

Another study of game preferences of children announces so decided a lack of sex differences in preferences at the fourth grade level

²⁵ M. V. O'Shea, *op. cit.*, pp. 64-65.

²⁶ *Ibid.*—(adaptation)

²⁷ Vaughn Blanchard, "An Analysis of the Likes and Dislikes of Boys and Girls in Health Education Activities, Grades Five, Six, Seven, and Eight in the Detroit Public Schools," *Research Quarterly* of the A.P.E.A., March, 1933, p. 241.

that differentiation there is not necessary. All games preferred by this age contain four specific elements, (1) big muscle activity, (2) strenuous and general participation, (3) competition, and (4) two group type of organization.²⁸

Tag is the favorite playground game in spite of all other games learned. . . . [Therefore it is] highly desirable that chasing and fleeing games be included among the games offered during the fourth grade. Time, number of players, and equipment may be exceedingly limited yet in the game of tag such handicaps count for nothing.²⁹

As a choice between old games and new ones, the old games are the most popular and most loved by grade children perhaps because "though the games are old, the children are always new."³⁰

Secondary School Level.—Three studies³¹ of the likes and dislikes of high school girls show their decided preference for sports over other activities although one study (Miss Driftmier's) did give highest rank to rhythmical activities out of a 37% poll. The composite³² of these studies shows rank of activities thus:

LIKES		DISLIKES	
1. Tennis	6. Track	1. Gymnastics	5. Marching
2. Swimming	7. Hiking	2. Apparatus	Skills prac-
3. Basketball	7. Stunts	Horseshoes	ticed in squads
4. Golf	Baseball	Correctives	6. Natural Dancing
5. Skating	8. Riding	3. Tumbling	7. Track
Dodgeball	9. Volleyball	4. Folk Dancing	
games	10. Canoeing		
Rhythmical			
Activities			

The Des Moines study³³ asked for the names of activities in which the girls specifically wished instruction and every activity receiving over a 20% vote was an individual sport.

²⁸ Norma Schwendener, *Game Preferences of Ten Thousand Fourth Grade Children*, New York City, New York, 1932, p. 34.

²⁹ *Ibid.*

³⁰ Carl L. Schrader, "Physical Education Becomes a Fundamental," *Journal of Health and Physical Education*, April, 1936, p. 217.

³¹ A. O. Anderson, "Student Opinion on Gymnasium Work," *News Letter* No. 55, National Recreation Association, New York, December, 1932, p. 7.

Theresa W. Anderson, "The Attitudes of High School Girls Toward Physical Activities," *Research Quarterly* of the American Physical Education Association, December, 1934, pp. 49-61.

Erna Driftmier, "Individual Differences in Interests and Physical Traits as Related to High School Girls in Physical Education," *Research Quarterly* of the American Physical Education Association, March, 1933, pp. 198-220.

³² Arranged from the three studies above.

³³ Theresa W. Anderson, *op. cit.*

College Level.—From a group of University of Iowa studies there comes an investigation of the activity preferences of college girls which dovetails well with those of the secondary level. Here again is a clear call for instruction in the individual sports with low rating given to all forms of formal work. An interesting revelation was the fact that most girls of this study "would join an athletic club almost entirely for social reasons."³⁴

Adult Level.—The first five things on the list of the recreational preferences of five thousand people are tennis, swimming, boating, golf and camping;³⁵ all out-of-door activities, which must be carried on away from the home—such things as can be engaged in only through some organizing agency. Clearly this is a challenge to physical education!

Parents' Preferences for Their Children.—Dr. G. S. Lowman of the University of Wisconsin and the author conducted a series of interviews in 1933 with parents in all parts of the country concerning the kind of programs of physical education they would like for their children. The following statement from one parent well expressed the majority opinion.

My boy lives on the farm, and I believe that he gets plenty of exercise; but I also know that it is not always of the right kind. So the kind of program that I should like for my boy would be one that would take care of any physical defects, and would help the boy to develop good carriage and control of the body, give him some knowledge of proper health habits—but mostly I believe it should offer to him the opportunity for play and games, and to develop skills in games which his home cannot offer.³⁶

For their girls these parents were loud in their condemnation of games played for championships, and of competitive swimming. They also disapproved of apparatus work, tumbling, "formal dance technique of the studio type," and basketball for junior high school girls. Fathers in particular objected to tap dancing. Some of their complaints were due perhaps to the lack of proper training of many teachers rather than to the nature of the activities themselves. The use of well trained

³⁴ Miriam Waggoner, "Individual Differences in Interests and Efforts of College Women as Related to a Program of Physical Education," *Supplement to Research Quarterly of the A.P.E.A.*, October, 1935, p. 94.

³⁵ *The Leisure Hours of 5000 People*, National Recreation Association, New York, 1934.

³⁶ G. S. Lowman, "The Kind of Physical Education Program I Should Like For My Boy," *Journal of Health and Physical Education*, April, 1933, p. 17.

teachers would answer many complaints "against ill-advised hours of basketball practice, too strenuous work along many lines, and the use of activities not adapted to the age group and physical capacities of the girls."³⁷ They particularly asked that the program give their children the following:

1. Acquisition of correct health knowledge, health attitudes, and health habits.
2. Proper physical development and growth including special posture training.
3. Acquisition of correct social attitudes including sportsmanship, discipline, ability to cooperate well with others, and ability to compete against others in a creditable manner.
4. Development of personality character traits, leadership ability, self-confidence, and poise.
5. Development of ability to enjoy physical activity for its own sake and to appreciate recreational activities for the future as well as for the present.
6. Acquisition of physical skills, agility, grace, coordination, rhythm, etc.
7. Development of healthy attitudes of mind, clean thoughts, and quick thinking.
8. Development of a program adapted to the age and needs of the children.
9. Acquisition of a knowledge of first aid.³⁸

REQUIREMENT CONSIDERATIONS

Shall there be a requirement that a school must offer a physical education program? If it does offer a program shall class work be required or elective? For some or for all? For how many years? How many times a week? What length the class periods?

A review of the present situation shows that there is almost universal acceptance of the thought that there should be a physical education program in the school. But there is not such universal agreement that the students should be required to take the work. In many situations where there is a requirement it is interpreted to apply to the majority of the students only. The requirement in general will be discussed here but the requirement as it applies to 100 percent of the enrollment and the time allotment will be discussed in later chapters.

³⁷ Mabel Lee, "Parents' Views Concerning the Program of Physical Education for Their Daughters," *Journal of Health and Physical Education*, April, 1933, pp. 13-15.

³⁸ *Ibid.*, p. 12.

Definition of Compulsory Physical Education.—Wood of Columbia defines compulsory physical education thus:

Compulsory physical education means that education agencies and society in general should be compelled to provide an environment favorable for the complete motor expression and development of the young; that the teacher should be required to give unselfish, whole hearted devotion to the problem of helping young people express themselves, and finally, that the young person should be required to face the obligations of living, and to assume as far as may be possible the responsibility for choice regarding the means for thorough preparation and fitness for life.³⁹

The Requirement Questioned.—Hetherington calls attention to the three types of person in America who are opposed to physical education: those who have a strong heritage of asceticism with its prejudice against the educating of the body; those who lean toward scholasticism with its sole interest in the development of the mind; and those who cling to Puritanism with its fear of the emotions and play. To all of these persons "play is synonymous with fooling and not worthwhile,"—to them the emotions are abstractions to be curbed, not realities to be trained.⁴⁰

There are also many adults who challenge the need of physical education, calling attention to their own seeming good health conditions which they maintain with a minimum of physical activity. They overlook the fact that, although after physical maturity the need of the body for physical activity is greatly reduced, it is paramount during the growth and developmental periods. There are also certain persons who feel that a well equipped department of intramurals can offer students all the values of a physical education program. W. L. Hughes of Columbia meets this argument saying:

. . . the intramural program should supplement rather than supplant the instruction in required activities. It is a mistake to suppose that one replaces the other. Aimless and voluntary competition in intramural sports without careful supplementary instruction regarding skills and appreciations in the required program seems as unfortunate as promiscuous reading without any kind of training in the skills and appreciations involved in reading.⁴¹

³⁹ Thomas D. Wood, *Health and Education*, National Education Association, Washington, 1925, pp. 13-14.

⁴⁰ Clark W. Hetherington, *School Program in Physical Education*, pp. 15-19. Copyright, 1922, by World Book Company, Yonkers-on-Hudson, New York.

⁴¹ "The Requirement in College Physical Education," *Journal of Health and Physical Education*, January, 1934, p. 59.

A minority of students question the requirement on the grounds that it robs them of time they prefer to spend on other studies; it does them no good and therefore is a waste of time; it adds unnecessarily to their expense; and, as a requirement, it robs them of their freedom.

The Requirement Justified.—Students have not yet attained a physical maturity which can safely dispense with regular big muscle exercise. If left to their own devices, many of them, not understanding the laws of growth, will deprive themselves of this important aid to proper development. If left to an election, many (even those who recognize their need) would not take physical education, due to the pressure of other interests, financial considerations, seeming schedule difficulties and a general human disposition to procrastinate on matters of one's own best good. Mitchell of the University of Michigan says:

. . . compulsion is viewed as merely a temporary expedient to introduce the student to the opportunities that are offered him and to give a ground-work in the tools that will be needed for later self direction. . . .

[The student] does not always present abounding health, does not always quickly seek the chance to play in an intramural game, does not always prove so versatile in recreative sports that he finds unaided the way to the tennis courts or swimming pool. . . .

Physical education has health knowledge to impart, has group experiences to offer, has the joy of effort and achievement to give, has the teaching of skills in lasting recreative interests as its responsibilities.⁴²

Physical education, properly taught, tests and measures results and progresses from lesson to lesson in its teaching situations just as do other branches of teaching. The day is long past when physical education periods can be looked upon merely as hours of fooling around. Students here as in other fields are held for the subject matter and are passed out of the course, as in other subjects of the educational field, only after a demonstration of their ability to grasp in both theory and practice the material offered in the course. It is in every way an educational procedure.

The contributions⁴³ which a well organized department of physi-

⁴² Editorial, "The Physical Education Requirement in Colleges," *Journal of Health and Physical Education*, February, 1933, p. 24.

⁴³ Adapted from Violet Marshall, "A Discussion of the Requirement in Physical Education for Women in Colleges and Universities," *Research Quarterly* of the A.P.E.A., December, 1934, pp. 6-8.

cal education can make if backed by a requirement are as follows:

1. Health protection: through the close relation maintained with the Health Service combined with the requirement of the student to report regularly to the department where she is closely supervised; through the lessening of tensions of body and mind by means of exercise; through "detection of deviations from sound mental health" as it shows up in physical education activities.

2. Vitality: through the "increase of powers and adaptability of the body" acquired from regular participation in "adequate physical activity"; through the assistance rendered the body in its normal process of bodily development by regular exercise.

3. Correct body mechanics: through acquisition of "skills necessary in order to stand, walk and perform all the usual movements of daily life with ease, grace and lack of strain."

4. Education for recreation: through the development of skills in recreative activities.

5. Social contacts: through the great possibilities of making friends more readily in a physical activity, especially in a sports activity, than in other educational situations.

6. The development of appreciations: through varied experiences provided in a well rounded program; through traits of sportsmanship and other such "over-tones" which are so important.

Argument Against the Substitution of Achievement Standards for a Requirement.—In response to the suggestion from a small group of educators that the ability to pass certain physical fitness and achievement tests should excuse a student from the requirement a mental hygienist replies:

The needs of an individual must be met at each age. Recent discussion of removing a physical education requirement . . . if an individual can meet certain performance and information tests neglects altogether the need he still has to integrate and develop his personality. . . . No remembered friendships or experiences from simpler . . . school days can substitute for new problems met, new friendships formed, and new balance attained at . . . higher mental ages. There is an especially fruitful proving ground in a well-directed . . . program of physical education.⁴⁴

Elective and Prescribed Work Within the Requirement.—Some schools prescribe all physical education work the pupils take within the school requirement, leaving elective work to be taken only in courses elected beyond the requirement; other schools prescribe only the first year's work, leaving the student a choice of activities during

⁴⁴ Harriet O'Shea, "The Mental Hygiene Significance of Physical Education," *Journal of Health and Physical Education*, March, 1933, p. 79.

the remainder of her required courses; still others prescribe no definite activities, leaving free election of activities at all times—of course within health limitations; and a fourth group of schools prescribe the activities for those students who pass poor physical examinations and motor tests but grant free election of type of class work to those who pass the tests with high ranking. The present trend seems to be towards this last plan.

The Present Status of the Requirement.—The depression challenged physical education widely and the present status of its requirement shows its strong hold in the school curriculum.

The Public School Situation.—A survey⁴⁵ of 46 leading cities of 22 states shows that of the three-year high schools, 82% require physical education all three years; 11%, two years; 3%, for two years in some schools of a city and three years in other schools of the same city; and 3% offer it only as an elective. Of the four-year schools, 70% require it all four years; 13%, for two years only; 4%, as an elective only; and 2% require it for four years in some schools of a city and for two years only in other schools of the same city.

The 1932 national survey of secondary education shows that 75% of the 460 schools of the survey make physical education a requirement.⁴⁶

The College Requirement.—Perhaps the most serious challenge to the requirement comes at the college level but this should not be taken too seriously as a movement against physical education itself since there is a general trend in the college world towards free elections in all directions.

In the state universities, physical education for women is required for the first two years except: in Texas where it is required instead for three years; in Washington where it is required for five quarters; in Illinois where students who can pass proficiency tests are excused; in Kansas where, since September, 1932, the requirement has been dropped; in Minnesota where it is required for the first two years of all students except those in the College of Science, Literature and the Arts; in California (Berkeley) where the requirement has been dropped; and in Wisconsin where it is required for the first year only.⁴⁷ The last three universities made the change in September, 1933.

⁴⁵ P. Roy Brammell, *Health Work and Physical Education, Department of Interior, Office of Education, Bulletin No. 19, Monograph No. 28, Washington, 1932.*

⁴⁶ *Ibid.*, p. 76.

⁴⁷ Information procured by the author from a questionnaire sent to state universities, January, 1934.

The one college in the University of Minnesota that had eliminated the requirement went a step farther in September, 1934, and even rescinded credit for elective work.⁴⁸ The department spring enrollment figures for that one college show a drop of 59 percent for 1934 and 53 percent for 1936 over the figures of 1933 before the unfavorable actions were taken.⁴⁹ At the University of California (Berkeley) the enrollment in physical education dropped 35 percent the first year of the removal of the requirement but only 25 percent the third year. At the same time there has been a large increase in the enrollment of upper division and graduate students in elective courses.⁵⁰ In the year 1936-1937, entering upon the fourth year since the requirement was dropped, the department reports that the enrollment in the total program is about the same as the former enrollment under the requirement.⁵¹

Five colleges have increased the requirement and eight colleges have decreased the requirement since the 1934 reports. This includes the University of Oregon, which has changed the requirement from two to one year for those students who can pass skill qualifications.⁵²

A year and a half after the University of Chicago had eliminated their requirement, the director of the department reported⁵³ a decrease in registration in team sports but an increase in the registration in individual sports.

Student Opinion.—In 1933 when the schools of the country were facing a serious crisis, the children of Wichita, Kansas, voiced their opinions overwhelmingly in favor of a requirement in physical education. When asked if they would take it if it were merely elective, 93 percent of the boys and 83.7 percent of the girls voted, "yes." The requirement was retained.⁵⁴ This is typical of the expression of opinions that were declared from many sources during the height of the depression when there were alarms over the abandonment of physical education along with other specialized subjects.

Although physical education was dropped as a requirement for women at the University of Kansas in 1932, the women students them-

⁴⁸ Association of Directors of Physical Education for College Women, *Report of the Conference*, Oberlin College, Oberlin, Ohio, April 16-18, 1934, p. 15.

⁴⁹ Obtained from enrollment figures procured from the department.

⁵⁰ Violet B. Marshall, "The Status of Physical Education for Women in Colleges and Universities," *Research Quarterly* of the A.P.E.A., October, 1936, pp. 12-13.

⁵¹ Letter from the Department, December 14, 1936.

⁵² Marshall, *op. cit.*, p. 11.

⁵³ Gertrude Dudley, "Some Observations on Optional Participation in Physical Education," *Report of Conference*, Oberlin, Ohio, April, 1934, pp. 17-21.

⁵⁴ National Physical Education Service, *News Letter* No. 63, National Recreation Association, New York, October, 1933.

selves cast an informal vote of 85 percent for its retention. In 1932, 66 percent of the women students at the University of Michigan went on record as favoring the usual two year requirement while 36 percent of them went so far as to urge a four year requirement. The women graduate students there were canvassed and they gave a 59 percent vote in favor of a four year requirement of four hours a week. The women at other universities voted in favor of a requirement in physical education as follows:

Colorado,	79%	Oklahoma, (only five students opposed
Indiana,	68%	to the requirement)
Illinois,	78%	Oregon,
Minnesota,	68%	Texas,
		Wisconsin, 60% ⁵⁵

The underclass students at the University of Chicago ask, "Why doesn't the University make us take gym?" They insist that they like it but will not take time for it unless they have to.⁵⁶ A composite study of opinion of over eight thousand women students of twenty-nine colleges and universities of the Middle West gave the following results as reported to the Society of Directors of Physical Education for College Women:⁵⁷

In favor of the requirement.....	79.3%
Opposed to the requirement.....	19.6%
Doubtful or no answer.....	1.1%
	100%

TRENDS IN PROGRAM PLANNING

Trends.—There seem to be eight major trends in the planning of physical education programs of today, namely:

1. A rapid departure from the old formalized method of content of activity showing in all branches of activities.
2. An increasing recognition of the fact that the programs are for the mass of students and not alone for the highly specialized few, showing in the enriched programs and heavy swing towards intramurals for all.
3. A growing realization that the programs are for the underprivileged few as well as for the mass of students, showing in the increased attention to the handicapped and restricted children.

⁵⁵ Information of entire paragraph procured by author from questionnaire, January, 1934.

⁵⁶ Dudley, *op. cit.*, p. 19.

⁵⁷ Angela Kitzinger, "The Requirements in Physical Education for Women," Unpublished Proceedings, Conference, University of Ohio, March, 1932.

4. An emerging social consciousness, showing in the movement toward mixed recreation.

5. A gradual acceptance of achievement standards to supplement mere time element, showing in the increased interest in tests and measurements in physical education.

6. The adaptation of the program to fit varying types of persons, showing in the increased interest in classification tests arising from the belated realization that all children do not follow the same pattern; in fact, that although children can be roughly classed into three main groups—those built for speed, those for strength, and those for endurance—there are all manner of deviations and mergings within these three types.

7. An awakening consciousness of the need of exact progression in teaching showing in the aroused interest in the formulation of teaching units.

8. A renewed attempt to adapt the program to age levels showing in the recent appointment of important committees to study the matter.⁵⁸

Criteria for Selecting the Activities.—Dr. Allen G. Ireland, State Director of Physical Education for New Jersey, lists the following standards for the selection of activities:

1. Local needs and conditions must be considered: specifically, type of community and pupil, personnel, time, facilities, equipment, supervision, and so forth.

2. Educational policies and the type of school organization must be followed.

3. Objectives must be at the basis of selection.

4. The growth and developmental needs of children must be met.

5. The interests, tendencies, abilities, characteristics, and want of children, as well as sex differences and physiological maturity, must be taken into account.

6. Activities must have meaning and purpose to the child; they must appeal.

7. Activities must insure a satisfying response on the part of the child; they must be interesting.

8. Activities must provide situations identical with or at least approximately similar to the natural play situations of children outside of school.

9. As a corollary of the above, the school program must provide those activity-situations which all children should have normally but which they do not have because of restricting community factors.

⁵⁸ Committee of Public School Section of American Physical Education Association, Chairman Miss Laurentine Collins, Public Schools, Detroit; joint committee of Society of Directors of Physical Education in Colleges and Society of State Directors of Physical Education, chairman, William La Porte, University of Southern California, Los Angeles; committee of Society of Directors of Physical Education for College Women, chairman, Miss Agnes R. Wayman, Barnard College, Columbia University.

10. Activities must provide the child with opportunities for creative self-expression.

11. Activities must insure the development of the fundamental physical skills that mean effective use of the body in all ordinary life-situations, in accident prevention, and the recreative pursuits.

12. The factors of health and safety must be considered.

13. The specific needs of individual pupils and especially physically handicapped pupils must be provided for in the selection of activities.

14. The objective of creating interest in recreational activities of value outside of school must be upheld.

15. Activities must provide situations in which the use of appropriate methods will bring out the correct social and moral responses.

16. The selection of activities must take into account the seasonal interests of children.

17. Activities appropriate to the testing and measuring procedures must be included.⁵⁹

Dewey gives one all embracing criterion for all phases of education when he says: "What the wisest and best parents want for their own children, that must the community want for all its children."⁶⁰

⁵⁹ Allen G. Ireland, M.D., "The Administration of Physical Education," *Journal of Health and Physical Education*, June, 1935, p. 24.

⁶⁰ *School and Society*, The University of Chicago Press, 1900, p. 19.

CHAPTER IV
PROGRAMS IN PHYSICAL EDUCATION

“. . . let use be preferred before uniformity, except where both may be had.”

—BACON

Program Content

The White House Conference briefly outlined the correct educational program as consisting of (1) play, (2) games, (3) rhythmic activities, (4) self-testing activities, and (5) out-of-school activities such as hiking, camping, and recreational clubs.¹ The particular activities selected to furnish this content should be those that will be the most highly (1) educational, (2) corrective, (3) hygienic, and (4) recreative.

There are plays, games, rhythmical, and self-testing activities which will develop courage, sportsmanship, endurance, imagination, love of activity, social consciousness, and like qualities more readily than will others; also there are activities which give real challenge in the attempt to acquire their skills: such activities should be sought out for a place on the program since the above qualities, added to the mentimotor training which comes from the acquisition of skills, will meet the educational aim. Skills properly taught are usually corrective; there are a few exceptions which result in poor posture. Most activities if indulged in vigorously enough are hygienic and, if in the teaching, they are given a correct carry-over impulse, most are recreative.

Since the schools cannot possibly allow all the time children need each day for big muscle activity they should, in the time that is allotted, give instruction in play material and establish play standards and attitudes that will carry over into out-of-school hours. This of course demands activities that have a natural appeal. To meet other developmental needs the program must be planned to assure that all children

¹ *White House Conference, 1930*, The Century Company, New York, 1931, p. 177.

learn correctly to walk, run, dodge, jump, stoop, lift, carry, throw, push, pull, and climb, with the greatest economy of energy so they may handle their bodies effectively.

Miss Agnes Wayman of Barnard College summarizes the ideal program content as follows:

Our program must contain activities which can be used indoors and out-of-doors, which can be used in large and small spaces, in the summer and in the winter; activities which require little equipment or for which equipment can be easily made; activities for the city streets and the wide open spaces; activities for the physically handicapped, for the physically illiterate and the motor moron; activities which can be enjoyed by groups or teams, but more especially activities which can be enjoyed alone, such as archery, golf, swimming, riding, and skating; or which can be indulged in by two's and four's. For various reasons our programs in the past have over-emphasized the team games at the expense of the individual and dual sports . . . and these latter are the very ones which will have the greatest carry-over values for future enjoyment of adults. More and more we shall give opportunity in our programs for mixed recreation in non-contact games, in activities which can be enjoyed by boys and girls together.²

The Public School Section of The American Physical Education Association is making a thorough study of the program content. It hopes to formulate a study which will serve "as guides to school administrators as well as to physical educators" and will accommodate its material "to fit in general all types of communities, schools, individuals."³ It reports that:

The elective activities of the junior and senior high school, and the prescribed activity of the elementary school, are comparable to the modern trend in curricula, i.e., the minimum, average, and enriched plans of work offered within a given subject. The elementary school assumes the responsibility for the minimum essentials, the junior high school for the average programs, the senior high school for the enriched program. The college is the institution whose privilege it is to offer superior programs. These programs are superior not only from the standpoint of social content but from the standpoint of social relations, both group and individual, based on the organization of required and elective activities.⁴

² "Physical Education for the Future," *Journal of Health and Physical Education*, January, 1935, p. 5.

³ Laurentine B. Collins, "Curriculum Study for the Public Schools Section of the American Physical Education Association," *Research Quarterly of the A.P.E.A.*, December, 1934, p. 112.

⁴ *Ibid.*, pp. 119, 126.

The present trend of program content in our public schools as interpreted by the author from the study of this curriculum committee is shown in Table II. An appraisal of activities by grade placement is shown in Table III.

To summarize the needs of the various age levels in terms of program content the following should serve as a guide, assuming for each level that the proper training was afforded in the earlier stages.

Elementary schools

Primary interest—body building.

Secondary interest—group games.

Minor interest—skills in individual activities.

Intermediate schools

Primary interest—body building and team games.

Secondary interest—skills in individual activities.

Secondary schools

Primary interest—team games and skills in individual activities.

Secondary interest—body building.

Colleges and adult world

Primary interest—skills in individual activities.

Secondary interest—maintenance of body development.

Minor interest—team sports.

In the following material that part of the physical education program which comes within the school class hour, the instructional period, is discussed leaving for later chapters a discussion of the after-school program, intramurals, athletic clubs, and co-recreation.

THE ELEMENTARY SCHOOL PROGRAM

General Characteristics of the Program.—The most effective program of physical education should be that of the elementary school since it not only deals with children at the most plastic age but it reaches the greatest number ever to be reached. For all that, the work, if carried on at all, is usually taught by the classroom teacher and with little if any supervision. Although she spends about half of her teaching time in work related to physical activities and health situations, she probably spent very little of her professional training time in preparation for this work.

A special joint committee of the American Physical Education Association and the National Educational Association which is now studying the problem of the preparation of teachers of physical education

TABLE II

TREND OF PROGRAM CONTENT OF PHYSICAL EDUCATION IN THE PUBLIC SCHOOLS *

	Large Cities	Small Cities	Towns and Rural Communities
Elementary Schools	rhythmic activity games stunts individual athletic games story plays self-testing activities	rhythmic activity games stunts individual athletic games group sports tumbling mimetics corrective procedures	rhythmic activity games stunts self-testing activities
Junior High Schools	swimming game skills sports relays restricted activities self-testing activities rhythmic work, tap, clog, social, folk stunts intramurals for girls intramurals for boys	fundamental skills sports relays rhythmic work, tap, clog, social, folk stunts	tumbling fundamental skills sports rhythmic work, tap, clog, social, folk stunts
Senior High Schools	sports games rhythmic activities self-testing activities athletics apparatus calisthenics corrective gymnastics restricted gymnastics	sports rhythmic activities point systems health instruction swimming	sports games intramural interschool rhythmic activities self-testing activities swimming stunts

*Adapted from Laurentine B. Collins, "Curriculum Study for the Public Schools Section of the American Physical Education Association," *Research Quarterly* of A.P.E.A., December, 1934, pp. 114-117.

TABLE III
APPRAISAL OF ACTIVITIES BY GRADE PLACEMENT

Activity	Elementary Grades	Intermediate Grades	Junior High School	Senior High School	College and Adult
Archery.....		×	×	×	×
Badminton.....		Variations		×	×
Baseball (Girls).....		Variations		×	×
Basketball.....		Variations		×	×
Boating.....		×	×	×	×
Bowling.....				Variations	
Correctives and Restricted.....	×	×	×	×	×
Dancing, Folk.....	×	×	×	×	×
Social.....		×	×	×	×
Tap.....				×	×
Clogging.....		×	×	×	×
Interpretive.....		×	×	×	×
Field Ball.....		Variations		×	×
Fundamentals.....	×	×	×	×	×
Games of low organization.....	×	×	×		
Golf.....		Variations		×	×
Gymnastics.....		×	×	×	×
Handball.....					×
Hiking.....		×	×	×	×
Hockey, Field.....		Variations		×	×
Ice.....		Variations		×	×
Horseshoe Pitching.....			×	×	×
Individual Athletics.....	×	×	×	×	×
LaCrosse.....				×	×
Mimetics.....	×	×			
Paddle Tennis.....		×	×	×	×
Ping Pong (Table Tennis).....		×	×	×	×
Relays.....	×	×	×	×	
Rhythms.....	×	×	×	×	
Self-Testing Activities.....	×	×	×	×	×
Shuffleboard.....		×	×	×	×
Soccer.....		Variations		×	×
Soccer Baseball.....		Variations		×	×
Speedball.....		Variations		×	×
Story Plays.....	×				
Swimming.....	×	×	×	×	×
Team Games of low organization.....		×	×	×	×
Tenniquois (Deck Tennis).....		×	×	×	×
Tennis.....		Variations		×	×
Tether Tennis.....		×	×	×	×
Track and Field.....		×	×	×	×
Tumbling.....	×	×	×	?	×
Volleyball.....		Variations		×	×
Water Polo (Modified).....				×	×
Winter Sports.....	×	×	×	×	×

for public school work has outlined the most important characteristics of the ideal elementary program as follows:

1. Well planned general and specific objectives which are physical, mental, and social in nature.
2. One hundred percent of the pupils enrolled involved in the program.
3. Determination of individual differences through pupil examinations.
4. A diversified program of activities.
5. An activity program graded as to difficulty.
6. A program adapted to the needs, capacities, and interests of the individuals participating.
7. A program of prevention, improvement, and correction of physical defects.
8. The classification of children into groups.
9. Careful development of knowledge and attitudes.
10. The use of all free periods for physical education purposes.
11. Adequate play areas, equipment and supplies.
12. Use of selected types of commercial equipment properly installed on school playgrounds.
13. Provisions for safety of children.
14. Keeping a useful set of records.
15. The testing of pupil achievement.⁵

Program Demands in Recognition of the Needs of the Child.—The age characteristics previously discussed determine the needs which may be summed up as follows:

- A. To meet organic needs
 1. Much vigorous play taken in many short periods
 2. Safeguards against more strenuous play than the child's own urge normally dictates for itself
- B. To meet neuro-muscular needs
 1. Opportunity to work on techniques in a variety of motor skills and experiences. (The child with a limited motor experience is handicapped in comparison with others when he is older⁶)
 2. A setting of own pace at acquisition of skills
 3. Opportunities to undertake all sorts of activities in which he has a natural interest
 4. No type of activity forced upon him through considerations beyond his own urges and interests

⁵ N. P. Neilson, "Report of the Committee on Teacher-Training in Physical Education in the United States," *Research Quarterly* of the A.P.E.A., March, 1933, p. 56.

⁶ John E. Anderson, *Happy Childhood*, D. Appleton-Century Company, 1933.

- C. To meet emotional needs
 1. Freedom of activity but protection in the freedom
 2. Opportunity for self-direction and initiative
 3. Opportunity for self-expression and self-testing
 4. Sympathetic criticism of skills development
 5. Freedom from pressure to excel
- D. To meet social needs
 1. Opportunities for responses in moral and social relationships
 2. Separation of grades that are far apart, since slight age differences make great physiological and psychological differences
 3. No competition between the sexes after the fourth grade except in mixed groups
 4. The sexes separated for their physical education work after the fifth grade except in those activities which boys and girls enter together normally, especially those in which they complement each other as in rhythmical activities

Recess and Its Use for Physical Education.—The Assistant Physical Director of Springfield, Massachusetts, sums up the recess problem thus:

Of the weekly 250 minute time allotment for health and physical education, 150 minutes are devoted to recess periods. If the recess period is worthy of that proportion of the time, serious thought must be put upon planning the most valuable sort of recess program.

For the past few years there has been a controversy as to whether the recess should be a time of free, unsupervised play, or an organized play time.

The main difficulty of this whole problem is that few of us have the same interpretation of either "free play" or "supervised play" or "organized recess." The first term should mean just what it infers, that children are turned loose to play, no one is in authority, no one plans the program. The term supervised play means that play equipment such as balls, bean bags—in fact, anything needed for games taught during the physical education period, is supplied. Play leaders are in charge of this equipment, teachers are needed for general supervision of this sort of recess, or organized recess, all teachers go out to a section of the playground assigned to them and each class group plays a game agreed upon beforehand. All three kinds of recess programs have merit, each for a different situation. It would indeed be difficult to decide upon the best kind of recess for all schools. However, it would seem as though the second plan, that of supervised recess, would prove to be practicable in most situations.⁷

⁷ Ruth Evans, "An Elementary School Program," *Journal of Health and Physical Education*, November, 1930, p. 23. (Since 1930 the time for grades 4-6 has been increased to 275 minutes).

For an effective program of activities for the recess period weekly and monthly schedules of all games with a list of leaders and officials should be prepared and posted for the children. This part of the program should be as well organized and administered as all other parts of the physical education program. Baltimore sets a splendid example in the conduct of its recess work.⁸ An interesting development in terminology is that at the Missouri State Department of Education which has dropped the word "recess" and substituted the word "directed play."⁹

The Program of Activities.—N. P. Neilson of Stanford University and Winifred Van Hagen of the State Department of Education of California made a study of 2,661 activities used in the grades in all parts of the country and from that list made a final selection of 821 preferred activities which they incorporated into a program for the grades.¹⁰ The committee on Curriculum Research of The College Physical Education Association spent nine years on the study¹¹ of a national curriculum recommending the following program for elementary level:

1. Athletic games of low organization.....	25%
2. Rhythmical activities	20%
3. Hunting games	15%
4. Individual athletic events (self-testing).....	10%
5. Mimetics and free exercises.....	10%
6. Relays	10%
7. Tumbling stunts	10% ¹²

For use in the lower grades varieties of the regulation forms of most sports are recommended. A suggested list of varieties for each sport is given in the regulation rule book of the sport. These are in practically all the guides and are arranged by grade level.¹³

⁸ Hilda Louis, "A Principal's Reaction to Organized Recess," *Journal of Health and Physical Education*, May, 1934, p. 40.

⁹ National Physical Education Service, *News Letter*, No. 72, National Recreation Association, New York, September, 1934, p. 2.

¹⁰ *Physical Education for Elementary Schools*, A. S. Barnes and Company, New York, 1930.

¹¹ The results of this study are published in a pamphlet by Wm. Ralph La Porte, *The Physical Education Curriculum*, covering all grades through college.

¹² See the Committee Report, p. 27 for suggestions of activities recommended to use under each heading.

¹³ A wealth of variation of such sports as baseball, basketball, dodge ball, hockey, soccer, tennis, and volleyball for various age levels is given, not only in the various Spalding Guides and state manuals, but also in Ethel Bowers, *Recreation for Girls and Women*, A. S. Barnes and Company, New York, 1934.

A committee of the Women's Athletic Section of A.P.E.A. has prepared a pamphlet, *A Selected List of Games for Large Gymnasium Classes with Limited Playing Space* which contains much splendid material. It may be procured through the A.P.E.A. office, 311 Maynard Street, Ann Arbor, Michigan for fifteen cents a copy.

The fundamental skills of the instinctive urge activities (running, jumping, throwing, climbing, etc.) should be given special consideration throughout the grade school program. Each child should be directed in its body building exercises so that while it is plastic it will learn the fundamentals of correct procedures in these instinctive urge activities. Any part of this body education that is neglected in the grade school ages will be acquired later on only by dint of hard work. It is unfair to children not to give them this training while they are plastic and can readily absorb it.

Children do not just "pick up" the ability to walk, run, jump, leap, throw, stoop, climb, lift, push, and pull objects, effectively and with grace and ease. These abilities must be worked into their minds and into their muscles. Every child should be tested on all of these fundamental abilities and given careful training in those in which it is not efficient. Unless physically handicapped no child should be allowed to leave the elementary grades without having acquired these skills. The proper techniques for these fundamental activities make interesting class work for all ages; even college girls flock to register in classes where it is known these fundamentals are to be taught.¹⁴

The fundamentals of recreational skills should also be laid at this period. Using tennis as an example, the child should have learned by the close of the sixth grade how to handle a racket and how to serve a ball against a wall; in the seventh grade he should learn the fundamentals of the regulation game and should have opportunity to acquire some proficiency in playing; in high school he should practice at the skills and thus graduate into adult life able to play a good game.¹⁵

The Corrective Program.—The Committee of the American Physical Education Association on Corrective Work suggests the following weekly program¹⁶ for correctives in the grades:

For special corrective classes

3 periods of exercise and games

1 period of sports

1 period of rhythmical activities which may be taken with regular class so they do not feel "out of things"

¹⁴ For discussions of these skills see J. F. Williams, *Principles of Physical Education*, W. B. Saunders Company, Philadelphia, 1928, pp. 326-328 and Ruth Glassow, *Fundamentals in Physical Education*, Lea and Febiger, Philadelphia, 1932.

¹⁵ Leslie W. Irwin, "Physical and Health Education Program," *Journal of Health and Physical Education*, April, 1936, pp. 245-7, 280.

¹⁶ George B. Stafford and Committee, "A Symposium of Preventive and Corrective Physical Education," *Journal of Health and Physical Education*, September, 1931, p. 19.

For regular classes

- 1 period of posture exercises
- 3 periods of sports and games
- 1 period of rhythmical activities

Corrective work is a difficult problem in the small school without a trained person to handle the work or with a small staff with heavy schedules of work. A city system should have a visiting corrective specialist or a corrective center to which children may be sent to the specialist as is successfully done in Los Angeles.¹⁷ One corrective teacher to five or ten large elementary schools is recommended to handle the work by meeting with each room teacher and each corrective pupil once a week and having the regular room teacher give the work unsupervised the other four days.¹⁸

In a school with three rooms, for example, one room each of grades 4, 5, and 6, corrective work could be offered in the following way: one room teacher could take charge of all the boys at the physical education hour; the second, of all the girls, and the third, of all pupils of all three rooms who need corrective work. Under the close supervision of the physical education expert, who personally takes the class once a week, this should work out very well.¹⁹ In the first, second and third grades the corrective work could be done by the specialist herself once a week and the other four days the regular room teacher could give these children exercise and games with the other children or send them to rest, as the specialist would determine upon the physical examination.²⁰

Los Angeles.—No doubt Los Angeles has the most adequate system of public school corrective physical education in the country. In 1920 its city schools organized corrective work on a large scale and by 1929 every one of the twenty-three senior high schools and nineteen junior high schools had a corrective room, a rest room, and a corrective teacher. In a report of 1930 the elementary schools had thirteen special teachers. For the centrally located schools they maintained physical education centers; for the others there were traveling corrective teachers. This work at that time reached fifty thousand children; thirty-five thousand posture cases, eight thousand heart cases, and many thousand weak foot cases. In the elementary schools there were one full-time and one

¹⁷ C. L. Lowman, C. Colestock and H. Cooper, *Corrective Physical Education For Groups*, copyright, 1928, A. S. Barnes and Company, Publishers, New York, p. 6.

¹⁸ *Ibid.*, p. 164.

¹⁹ George T. Stafford and Committee, *op. cit.*, p. 18.

²⁰ *Ibid.*, p. 20.

part-time pediatrician, one part-time orthopedic surgeon, one special nurse, nineteen corrective teachers and one assistant supervisor, for the thirteen corrective centers and part-time work in fifty-five elementary schools. For the kindergartens there was one special corrective teacher. In all, Los Angeles had over one hundred corrective gymnasiums in its public schools.²¹ No doubt this work has grown still more since that date.

New York.—In 1935 the State Department of Education of New York entered upon a policy of setting up special preventive and corrective physical education work under special elementary apportionment units wherever ten or more physically handicapped children could be grouped together for special class work.²² By 1936 a Supervisor for Corrective Physical Education had been added to the staff. The State Legislature appropriated \$27,000 that year for recreation for the physically handicapped, to be spent under the direction of the State Physical Education Director.²³

Making the Selection of Activities.—Games must be selected carefully by age levels for the sake of the sports themselves as well as for the sake of the children. Grade children should not play games adapted to high school age. Familiar to many communities are the much publicized "midget football teams" that are sponsored by well meaning but ill-advised business men, who are astonished when they are accused of exploiting boyhood. Equally familiar are the parties for adults where little girls of the community entertain at late hours with clever tap and toe dancing accompanied by the proud smiles of overly ambitious mammas, the awed admiration of unthinking onlookers and the uncomfortable squirming of those who realize the full import of what such experiences must mean to the child's personality development.

Even without such promotion by elders, children like to imitate high school age and they beg for grown-up sports in their program. But "the preadolescent youngster is an individualist, and a basketball game with six players playing 'a lone hand' may be good fun, but it is

²¹ Sven Lokrantz, "Corrective Physical Education Practiced in Los Angeles City Schools," *Journal of Health and Physical Education*, March, 1930, pp. 6-8.

²² National Physical Education Service, *News Letter* No. 87, National Recreation Association, New York, February, 1936, p. 11 quoting from *Bulletin To The Schools*, September 16, 1935, The University of the State of New York, State Education Department.

²³ *News Bulletin* of Society of State Directors of Physical and Health Education, October, 1936, p. 2.

not good basketball." ²⁴ Many untrained teachers say the children will play nothing else; it is probably because they know no other game. The grade school teacher who is unversed in physical education principles, untutored in the psychology and physiology of exercise, and ignorant of the wealth of activities that make up a rich physical education program should not be without a copy of a good manual ²⁵ to guide her in the selection of activities.

Organization of Programs.—Reports of forms of organization in use in the following situations give a brief cross section of the physical education grade school work of the nation.

California.—Unless excused for disability every child in the elementary schools of California must have one period a day of physical activity. This period is not to be broken up into two or more part periods: it must be kept intact so that there is sufficient time for the child to engage vigorously in vigorous exercise. During the period the teacher must give the children new material which they can and will use during their free play hours. In addition numerous relief periods of two minutes each are to be given by the teacher as she feels they are needed. She may elect to have the children run around the school house or do some similar vigorous exercise out of doors: whatever she gives, it must not be formalized and it must be of a vigorous exercise for large muscle groups. When the exercise is taken indoors the windows are to be thrown open for the two-minute period. ²⁶

Philadelphia.—In grades four to eight inclusive, all children are required to do running, jumping, throwing, and a modified form of climbing. ²⁷ For these activities they group the children by abilities ²⁸ and use individualized methods of teaching. They teach the fundamentals of new skills and activities by mass instruction and then the class practices at them in groups with leaders. The pupils compete against their own record working towards the achievements standards set up for each activity. The more proficient work toward higher standards and

²⁴ Mary C. Coleman and Guy B. Phillips, *Athletics for High School Girls*, *Extension Bulletin* Vol. 3, No. 1, North Carolina College for Women, Greensboro, North Carolina, November, 1925, p. 8.

²⁵ Such as Neilson and Van Hagen, *op. cit.*; L. Anderson and F. McKinley, *An Outline of Physical Education For The First and Second Grades*, A. S. Barnes and Company, New York, 1930; and the manuals developed by many State Departments of Physical Education.

²⁶ N. P. Neilson and Winifred Van Hagen, *Physical Education for Elementary Schools*, copyright, 1930, A. S. Barnes and Company, Publishers, New York, p. 2.

²⁷ Grover Mueller, *Report of the Division of Physical and Health Education*, Board of Education, Philadelphia, 1933, p. 21.

²⁸ *Ibid.*, p. 7.

cover more events hence they are not held back by those of lesser abilities: at the same time the less proficient are not discouraged by the superior skill of the others. All schools are supplied with record forms to record each child's progress in these individual activities.²⁹

Wichita, Kansas.—This city of 115,000 population with an enrollment of 22,000 school children operates on a modified platoon system from grades three to six with forty-eight platoon teachers of physical education. Four rooms make a platoon and one hour daily is assigned as a platoon period. One day of each week the entire hour is spent in art work, the other four days the hour is divided into three periods of twenty minutes each, one for music, one for penmanship, and one for physical education. The four teachers of the four rooms teach these four subjects: one teaches physical education to the pupils of all four rooms, the second teaches music to all the pupils, the third, penmanship and the fourth, art. In addition to this each teacher teaches all other subjects of her grade. These special subjects are taught under the close supervision of trained experts.

THE SECONDARY SCHOOL PROGRAM

The Problem of the Secondary School.—Spaulding of Yale maintains that:

We are giving universal schooling, but not universal education; the secondary school does not in reality prepare the young for worthy living. . . . We cannot prepare the masses for worthy living without subjecting them to the discipline of hard work and the modern high school is a place of recreation and mild endeavor. "It avoids for *all* the evils of failure, but at the price of the far worse evils of cheap success for the many." . . . It is doubtful, however, whether a single institution can succeed in preparing all youth for worthy living. . . . "Whatever the solution demands, we must provide."³⁰

The solution, as far as physical education is concerned, demands: (1) proper physical development for the present growth stage; (2) mentimotor training; (3) proper socializing influences; and (4) tools for the proper use of future leisure.

The high school teacher has two groups to keep in mind in planning the physical education program, the group that will and the group that will not go on to college. For practical purposes the two groups

²⁹ Mueller, *op. cit.*, p. 10.

³⁰ Frank E. Spaulding, "The Progressive Debilitation of the Secondary School," *Harvard Teachers Record*, June, 1934, pp. 120-36, as digested by Austin B. Schmidt, *Loyola Educational Digest*, December, 1934.

cannot be segregated yet they do present two entirely different problems and for a few reasons segregation would be wise. The first group must leave high school with its recreational interests fully aroused and with fundamental recreational skills developed. The second group will have contact with a college physical education program to augment these needs so that the still plastic years of high school age might well be largely spent in fundamentals of bodily development and life activity skills. Otherwise the needs of the two groups are the same and both must be subdivided into units according to physical classification.

Standards for an Adequate Program.—Upon entrance to high school all children should be able to pass certain standards of achievement in a variety of activities. They should be adept at fundamental skills such as: ability to walk at least two to three miles a day at a rate of four miles an hour without fatigue and on special occasions to walk ten or more miles comfortably; to run easily, and with fair speed; to throw accurately; to jump with ease and for fair distances. Although a high level of accomplishment should not be urged upon them the great mass of youth should be brought to normal achievement for their age level. During high school days they should progress to still higher levels.

Aside from the limitations that must be observed for physically subnormal children and those who have not yet attained their age achievement standards, the pupils in the senior high school should be given a great freedom in choice and responsibility in regard to their program, the teacher serving merely as an adviser. This of course presupposes that the junior high school training has been adequate. The major part of the physical director's energy and attention should be given to the junior high school group.

According to the joint Committee of the American Physical Education Association and the National Education Association, an adequate secondary program is as follows:

1. Every pupil enrolled in a secondary school should participate daily in a health and physical education program.
2. The length of instructional periods should range from forty to sixty minutes.
3. The health and physical education program should be adapted to the needs, capacities, and interests of pupils.
4. An educative and protective program in health and physical education should be provided.
5. The physical education program should provide a large variety of activities.

6. Emphasis on the class period, intramural, interschool, and play-day programs in physical education should be well balanced.

7. In the secondary school, considerable emphasis should be placed on physical education activities which may be used by adolescents and adults as leisure time activities.

8. Cumulative records of pupils' health conditions, behavior, and attainments in the health and physical education program should be kept and used to the advantage of the pupil.

9. The school should make a sincere effort to secure the correction of remediable defects found through examination of pupils.

10. Achievement tests should be given to diagnose, motivate, and measure the improvement in pupil development.

11. The health and physical education program should be conducted by competent leaders.

12. Competent overhead supervision of health and physical education programs should be established and maintained.

13. Adequate facilities, equipment, and supplies should be available for the health and physical education program.³¹

Activities for the Secondary Program.³²—The fundamentals missed in the elementary grades should be vigorously attacked during this age level while perhaps not yet too late to build for more normal functioning in fundamentals of bodily movement and body control. As in the elementary schools so also in the higher grades it is important to give, during the instructional periods, play material and play guidance for the establishment of proper play attitudes for those periods when the child is on his own. The sports selected should be those that are habit-forming in terms of recreation and they should be selected with the student's natural preferences in mind.

*Standards for Selecting Activities.*³³

1. Select activities of a wide variety that are interesting.
2. Select only those not likely to cause physical or social injury.
3. Select big muscle activities which pupils will be apt to use in later life.
4. Select those activities that have inherent in them elements that make them educationally valuable.
5. Select activities which stimulate vital organs.
6. Select activities that can be used in an extensive intramural program including minor activities as dancing, sports clubs, hiking, etc.

³¹ N. P. Neilson, "National Study of Professional Education in Physical Education," report of the National Committee *Research Quarterly* of the A.P.E.A., December 1935, p. 56.

³² La Porte's study suggests a core program of eight activities for girls in the junior high school and of nine in senior high school, each to cover seventy-two weeks work supplemented by thirty-six weeks of election work in a variety of other activities.

³³ Adapted from Committee Report, "Objectives and Policies," *The Research Quarterly* of A.P.E.A., December, 1934, pp. 36-37.

A safe general rule to follow in selecting the games that shall make up a program is to ascertain which sports are of the greatest interest to the majority and, of those, select the ones that fit best into the budget allowance and, of this last group, select the ones that can be learned the most readily and will be used the most by the pupils when on their own.

Debatable Activities.—That small minority of girls who come to school from a life that has vouchsafed them excellent physical development and a good repertoire of sports skills will, no doubt, find most of the "doubtful" items and some of the "not safe" items of the following list quite safe but school programs must be built around the average girl. The following list is presented after years of experience with girls in all manners of physical activities—girls who have been on the whole just the average run of girls—such girls as make up the major enrollment of the average school.

NOT SAFE FOR GIRLS

- | | |
|---|--|
| 1. Apparatus work on parallel bars. | 9. Jumping without soft pit or mats. |
| 2. Basketball (boys' rules). | 10. Pole vaulting. |
| 3. Basketball (girls' rules) in competition for junior high school age. | 11. Running more than 50 yards in races. |
| 4. Basketball (girls' rules) in competition where there is much at stake. | 12. Soccer in competition at junior high level. |
| 5. Dancing, gymnastic type with stunt element. | 13. Speedball in competition for junior high school age. |
| 6. Field hockey in competition for junior high level. | 14. Stunts such as hand spring. |
| 7. High hurdles. | 15. Swimming long distance for speed. |
| 8. Jumping, either high or broad in competition for a best record. | 16. Swimming under water for distance. |
| | 17. Walking long distance for speed. |
| | 18. Water polo (boys' rules). |
| | 19. Weight throwing. |

DOUBTFUL FOR GIRLS

- | | |
|--|---|
| 1. Apparatus work of all kinds on heavy apparatus. | 7. Plunges for time longer than 25 seconds. |
| 2. Basketball, even girls' rules, for any except the sturdy. | 8. Running any distances in competition for best record. |
| 3. Competitive sports of high organization for junior high school age. | 9. Soccer for junior high school age. |
| 4. Field hockey for junior high school age. | 10. Soccer for senior high school age except with shortened field and playing time. |
| 5. Field hockey for senior high school age except with shortened field and shortened playing period. | 11. Speedball except with shortened field and playing time. |
| 6. Jumping. | 12. Water polo, even girls' rules, for any except strong swimmers. |

Lloyd of New York University ³⁴ has carried on an intensive study

³⁴ Frank S. Lloyd, *Safety in Physical Education in Secondary Schools, Educational Series*, Vol. IX, National Bureau of Casualty and Surety Underwriters, 1933, p. 49 and in *Research Quarterly*, March, 1933, p. 6.

of safety in high schools from which he concludes the following:

Very hazardous	Hazardous	Mildly hazardous
Touch Apparatus	Hockey (ice)	Baseball
Heavy Apparatus	Archery	Field (Track)
Football	Basketball	Soccer
Highly hazardous	Speedball	Cross Country
Lacrosse	Hockey (Field)	Swimming
Wrestling	Fencing	
Tumbling		

Activities for Special Cases.—In planning programs there must be taken into consideration weak hearts, goiters, crippling defects, flat chests, round shoulders, flabby abdominal muscles, weak feet, overweight, under-weight, laziness, over stimulation towards activity, anemia, ingrowing temperaments, outgrowing temperaments, sulky dispositions, those who think they hate to exercise, and the so-called "dub." There must be introduced into the program somewhere, somehow, team and individual games and sports for these girls. This is where the resourcefulness, ingenuity, and imagination of the instructor will have a chance to function. For those who must be restricted in their exercise because of physical handicaps there are the following activities from which to build a program:

- | | | | |
|-----------------|----------------|------------------|-------------------|
| 1. Aerial darts | 5. Bull board | 8. Horseshoes | 12. Shuffleboard |
| 2. Archery | 6. Hiking (re- | 9. Paddle tennis | 13. Swimming (re- |
| 3. Bounce ball | stricted) | 10. Ping pong | stricted) |
| 4. Bowling | 7. Hockey golf | 11. Quoits | 14. Tether tennis |

*Suggested Curriculum.*³⁵—The suggested yearly program of required work for the secondary schools of Kansas City³⁶ is as follows:

	7th Grade		Freshmen		Sophomore		Junior-Senior	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Games and Sports (Fundamentals)	30%	20%	30%	20%	40%	30%	30%	20%
Games and Sports (Contests)	20%	20%	20%	20%	20%	20%	40%	40%
Self-testing Activi- ties (including swimming)	40%	40%	40%	40%	30%	30%	20%	20%
Rhythmic Activities	5%	15%	5%	15%	5%	15%	5%	15%
Hygiene and First Aid	5%	5%	5%	5%	5%	5%	5%	5%

³⁵ A splendid six-year curriculum is suggested by D. Obersteuffer in "The Content of a Modern Program of Physical and Health Education," *The Journal of Health and Physical Education*, March, 1933, p. 48.

³⁶ Curriculum Committee, *Tentative Course of Study in Physical Education for Junior and Senior High Schools*, Curriculum Bulletin No. 12, Kansas City Public Schools, Kansas City, Missouri, 1934, p. 29.

The percentages above refer to the time of the total year's program to be devoted to each group of activities.

The Survey of 1930.—A nation-wide survey made by the author in 1930 of the activities for girls used in one hundred sixty-two high schools of cities and towns of all sizes gave the information contained in Table III(A) on page 104.

Programs in Use in Secondary Schools.—Case histories are usually interesting in any field. Work which is actually being done in the field of secondary physical education is presented below as "case" reports.

*Detroit—Northwestern High School Physical Education Program for Girls.*³⁷—A four-year experiment was carried on from 1925 to 1929 with the twenty-four hundred girls in Northwestern High School in an attempt to learn the health needs of this age girl. The students analyzed their own needs as they saw them in light of their present living situations and talked them over with the teachers. As the result of this study there was an entire casting aside of old methods and old programs, with the following changes:

1. The physical education program changed to a health education program adding open window rooms, orthopedic rooms, rest rooms, improving ventilation, lighting, lunch rooms, seating of class rooms, adding rest periods, walking, golf, archery and such activities for those who should not have strenuous exercise.

2. An achievement standard was substituted for a time requirement for graduation.

3. The content of program changed so emphasis is placed on a few important things instead of upon many important things. Importance is determined by "felt needs" of the girls themselves. This means the new program consists of swimming, sports, dancing, with a real attempt made to give every girl enough proficiency in these that she will use them for pleasure. This use will come in school days by means of dance festivals, tournaments, field days, sports days, etc.

4. Dropped from the program is formal gymnastics, marching, apparatus work, organized free play and stunts.³⁸

These changes had been in effect for many years in college programs but Detroit was pioneering at that time in this movement in one of its secondary schools. This change in program resulted at once

³⁷ Esther Sherman, *Health Education: A Program for Girls in Secondary Schools*, Board of Education, Detroit, 1929.

³⁸ *Ibid.*, p. 13.

TABLE III(A)
ORDER OF PREFERENCE AND PERCENTAGE OF USE
IN HIGH SCHOOLS

	Cities under 50,000 population	Cities of 50,000-100,000 population	Cities of 100,000-300,000 population	Cities over 300,000 population
1. Baseball	87	100	81	100
2. Volleyball	87	100	78	100
3. Basketball	78	95	78	100
4. Lawn Tennis	57	69	75	100
5. Track and Field	48	67	60	93
6. Swimming	38	53	51	75
7. Soccer	29	51	51	68
8. Field Hockey	25	51	43	50
9. Archery	14	28	33	50
10. Speedball	12	18	21	37
11. League baseball	12	16	18	31
12. Bowling	10	16	18	25
13. Golf	6	14	15	18
14. Horseshoes	4	14	15	18
15. Deck Tennis	4	14	12	12
16. Fencing	2	14	9	12
17. Paddle Tennis	2	4	6	6
				6

in "unprecedented increase in numbers in the elective program." (A change from 9 percent to 46 percent in a five-year period.)

This program is of sufficient moment in showing the present trend that it warrants the following lengthy explanation of their method of procedure at that time.

1. Upon entering junior high school a girl was enrolled in an appraisal class five times a week, in which class she was given the fundamentals of hockey, basketball, social dancing, posture work, and, in addition, was given tests in fundamental skills, social dancing, swimming, and the fundamentals of various sports.

2. As a result of these tests her future work was outlined as follows:

a. If she failed to pass the tests in fundamental body skills, elementary swimming, and social dancing, she had to take a course in each of these until she could pass it.

b. If she failed to pass one of the five individual sports tests which she chose to take from a group of ten listed, she must take an elementary course in one of these sports until she could pass that test.

c. If she failed to pass the fundamental tests in both hockey or basketball she must take an elementary course in one of these two sports until she could pass.

d. If she has passed one or more of the requirements listed above, she may take whatever she has not yet passed in the order listed, working five hours a week with three hours in the first activity on the list and two hours on the next in order until she has passed all, even if it takes to the end of her senior year.

e. When she has passed all these tests she is given ten credit points toward graduation from junior high school and is excused from all further requirements in the department, but she may elect to do advanced work in swimming, dancing, and sports as offered.

3. Exceptions to these regulations were made for students not able to do regular work. They were assigned to orthopedic, restricted, nutrition, rest, or open air classes as indicated by their physical condition. They took special work as long as they were not able to meet the regular requirements even if it took all four years. Whenever they became able to do regular work, they started on the requirements and passed as much as possible in the time left of the four years. At the end of the fourth year if they had taken their work faithfully they received the ten credit points toward graduation.³⁹

³⁹ Arrangement from Sherman, *op. cit.*

The first spring this new program was in effect the class assignments ran as follows:

Appraisal class—5 times a week.....	248
fundamentals of hockey and basketball testing in fundamental skills, swimming, social dancing, posture, sports fundamentals.	
Dancing	125
natural, clog, folk and character	
Extra curricular	623
Fresh air class	55
Fundamental skills (4 sections)	153
swimming, sports, social dancing, physical skills	
Hygiene	46
Orthopedics	227
Sports, individual and team.....	756
Swimming	1,082 ⁴⁰

7 teachers and 3,300 enrollment.

By 1936-1937 the secondary physical education program in Detroit for both boys and girls was built entirely upon achievement standards instead of upon the old plan of time requirement: the achievement standards must be met before graduation. Wherever possible the boys' and girls' programs are constructed together.⁴¹

*St. Louis, Missouri—Soldan High School.*⁴²—The required program is for two hours per week for four years for the 1,145 girls, with two full-time women teachers. Of the four hours required every two weeks, two are spent in sports, one in gymnastics, and one in rhythms. In May skills practice in individual athletics replaces gymnastics and rhythms. (The four-year program is given on page 107.)

*Wichita, Kansas—East High School.*⁴³—With the 6-3-3 organization of the schools, there are but three grades in the high school. Physical education is required five days a week for all three years, with the five hours divided into two periods out of doors, two in the gym-

⁴⁰ Sherman, *op. cit.*, p. 17.

⁴¹ From information received by author October, 1936, from correspondence with Miss Laurentine Collins of the Department of Physical Education, Public Schools, Detroit, Michigan. Miss Collins and Mr. V. S. Blanchard, the Supervisor of Physical and Health Education, are co-authors of *An Activity Program in Health Education for Intermediate Schools*, publication No. 109 of the Board of Education of Detroit. Copies may be procured from the Department of Publications at \$2.00 each. Every teacher of physical education who is working with junior high school age should have a copy of this book at hand not only as a guide in program planning but as a guide in lesson planning.

⁴² Information from Miss Blanche Higgins, Department of Physical Education for Girls, February 6, 1935.

⁴³ Information from Miss Flora Stebbins, Department of Physical Education for Girls.

FOUR-YEAR PROGRAM FOR GIRLS, SOLDAN HIGH SCHOOL
Year 1934-1935

	Games	Gymnastics	Rhythms												
September and October	Soccer and Soccer Skills	Marching and Posture	Social and Folk Dancing												
November and December	Volleyball and Volleyball Skills	Marching and Posture	Social and Folk Dancing												
January	Basketball and Basketball Skills	Marching and Posture	Social and Folk Dancing												
February and March	Basketball and Basketball Skills	Posture and Group Games of low organization	Social and Folk Dancing												
April	Baseball and Baseball Skills	Posture and Group Games of low organization	Social and Folk Dancing												
May	Baseball and Baseball Skills	<p style="text-align: center;">Achievements</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Running high jump</td> <td style="width: 50%;">5. Basketball 30 second throw</td> </tr> <tr> <td>2. Standing broad jump</td> <td>6. Pole Climbing</td> </tr> <tr> <td>3. Basketball</td> <td>7. Baseball pitching</td> </tr> <tr> <td>4. Basketball Free Throw</td> <td>8. Volleyball Serve</td> </tr> <tr> <td></td> <td>9. Balance Test</td> </tr> <tr> <td></td> <td>10. Posture Test</td> </tr> </table>		1. Running high jump	5. Basketball 30 second throw	2. Standing broad jump	6. Pole Climbing	3. Basketball	7. Baseball pitching	4. Basketball Free Throw	8. Volleyball Serve		9. Balance Test		10. Posture Test
1. Running high jump	5. Basketball 30 second throw														
2. Standing broad jump	6. Pole Climbing														
3. Basketball	7. Baseball pitching														
4. Basketball Free Throw	8. Volleyball Serve														
	9. Balance Test														
	10. Posture Test														

All activities are required; no electives are offered. In the freshman year activities are introduced for the first time and fundamental skills are taught. In the following three years the same activities are offered but they progress in difficulty.

nasium, and one in the pool. All must take swimming one hour per week until they pass the swimming test which is a fairly stiff one. Having passed the test the pupil is then excused from the swimming class requirement but is urged to come out after school for elective advanced swimming and life saving.

There are 990 girls taking work in the department with five full-time professionally trained women teachers. The program consists of four basic requirements: rhythms consisting of clogging and fundamentals; seasonal group sports; individual skills consisting of apparatus and tumbling, track and tennis; and swimming. For the six semesters a sophomore is to take work in the department she must spend the first four of them in these requirements, one semester for each electing them in any order she may choose: the last two semesters she is allowed free

election. If a girl enters the school as a junior, she is held the first two semesters for two of the four basic requirements and in her senior year she has free election: the girl who enters as a senior is excused from meeting any of the basic requirements, being permitted free election.

An exception to the above is that all must spend one hour a week of the winter season as follows: sophomores in health education; juniors in class sports; and seniors in fundamentals of correct walking.

THE RURAL AND SMALL TOWN SCHOOL PROGRAM

In the state of Pennsylvania with 1,187 high schools, the enrollment in half of these schools is less than 150 with only one to six teachers for each school.⁴⁴ The average enrollment for the entire country is even lower—one hundred or less.⁴⁵ Figures of 1929 give a total enrollment of nearly twelve million in our rural schools with only slightly over that figure for the urban schools.⁴⁶

The Problem of the Small School.—The above figures give us a suggestion of the large number of schools that there must be either without physical education programs altogether or with programs that are most inadequate because of lack of facilities, lack of time allotment, and lack of properly trained teachers.

The rural teacher has the unique problem to solve of giving as adequate a training to several grades in a room as the urban teacher with one. This constant pressure of a number of groups to plan for in study and in recitation, with a less generous supply of materials as a rule, may result in unnecessary curtailment of physical education teaching time, though it does not generally affect the recess time.

The feeling that physical education is not as necessary for country children as for urban children is fairly common. It is based on the argument that country children get enough exercise in the long walks to school and their chores at home. To a certain extent this may be true, though it is equally true that in the last few years bus transportation and the electrifying of farms have done much to invalidate the argument. But even if it were true, there still remains the fact that exercise is only one of the objectives of physical education, and that other objectives are equally important.

⁴⁴ W. H. Bristow, in an address before State Directors of Health and Physical Education, Atlantic City, February 25, 1930.

⁴⁵ Knute O. Broady, "Is an Adequate Program of Health and Physical Education Feasible in a Small Schools System?", *Educational Administration and Supervision*, January, 1936, p. 20.

⁴⁶ Report of Committee on *Rural School Health and Physical Education* of Society of State Directors of Physical Education, New York, December 31, 1929.

We are as much concerned with giving the child opportunity to develop the ability to play in groups in socially acceptable ways; in the development of certain fundamental skills; in protecting him in his play from hazards, and teaching him to protect himself; still concerned that his posture be at its best; that he learn to follow as well as to lead in play and in work; that he develop good attitudes toward play, and that he accept certain standards of conduct and live up to them.

Thus, we can hardly say that just the exercise of walking, or bending, or carrying, takes the place of a program of health and physical education, that is if we conceive physical education to be more than merely a maker of muscles.

Rural teachers have the real responsibility, then, of building up a progressive program of physical education to meet the needs of their groups, and doing it usually without special supervision.⁴⁷

Consolidation of schools does not always solve the problem of inadequate programs for, too frequently, even the consolidated school itself is still a small school with the inadequacies of the small school.⁴⁸ Then, too, many of our schools are handicapped in their physical education program because they confuse it with their "spectator athletics" program. "Spectator athletics" and "educational athletics" are two quite different things. If a school cannot have both why sacrifice the educational program for the entertainment of the public? Why give the average child too little opportunity for proper physical and personality development in order to give over-attention to the few best athletes?

Recreational Interests of Rural Communities.—Nebraska is a state of small towns and rural communities. The students who come to the university show a fairly good cross section of what is being done in physical education throughout the state. Physical examinations and tests show a sorry picture of physical development and body skills while surveys show a poverty of recreational interests. An investigation of the entering women students in 1929 revealed that for physical recreation, excluding social dancing, 17 per cent engaged in hiking only (and for many of these girls it was later learned that it was walking, not real hiking, which they meant), 8 per cent enjoyed dancing such as tap and toe dancing, 4 per cent named tennis, 1 per cent named a variety of sports and swimming among them and 70 per cent claimed no recreational interests.

⁴⁷ Commonwealth of Massachusetts, *A Course of Study in Physical Education for Kindergarten and Grades I, II, III*, Department of Education, Bulletin No. 275, Boston, 1934, p. 11.

⁴⁸ Broady, *op. cit.*

Lack of a physical education program altogether in most schools and too formalized a program where one does exist may, in all probabilities, explain this condition. At that time school programs were passing through a stage of formal activities and gymnastic drill, unnatural to the girls' instincts and having no carry over value, but now they are emerging into a period of natural play and the change shows in the investigation made five years later which shows a much better situation, as follows:

RECREATIONAL PREFERENCE OF ENTERING FRESHMEN WOMEN
AT THE UNIVERSITY OF NEBRASKA, FALL OF 1934

(Listing only those activities which over 5% of the students mentioned)

Reading34.9%	Walking16.7%	Skating8.5%
Dancing21.0%	Riding13.8%	Music6.6%
Swimming17.3%	Tennis10.3%	Movies6.3%

Suggested Means of Solving Difficulties.—No committee has more ably advised on the rural high school situation than the Committee of the National Education Association of 1928 which said:

The rural high school in order to fulfil its obligation to the children should make a careful study of possible available facilities in the community, if the school is as yet not equipped. The town hall, the Grange hall, or church recreation hall may lend itself to carry out a worth-while program. . . .

When a playfield is too far from the schoolhouse to be used during the day, the transportation buses may be used to carry the classes quickly to and from the field and thus carry out a program for all throughout the school day. In order to insure proper instructions, neighboring towns may share in the services of the director of physical education. Where this is impossible or undesirable, a leader should be secured who can teach another subject besides physical education. Such a teacher, however, should have had at least summer school training in physical education so as to carry on a varied program. Mere playing ability of a game or sport should not be considered sufficient.

The organization of classes may necessitate having two grades together, but girls and boys should be separated. Individual achievement tests, group contests, and occasional field days will furnish a much worth-while recreation program.

Where schools are so small as not to make possible competition in games, neighboring schools may exchange visits for that purpose, which under proper guidance will be safe and instructive. The social side of these visits may well be stressed.⁴⁹

⁴⁹ Department of Superintendence, *The Sixth Year Book—The Development of the High School Curriculum*, National Education Association, Washington, 1928, p. 462.

Broady of the University of Nebraska has given much study to the problem of the inadequate programs of the small school systems. He offers practical suggestions for meeting the major difficulties in regard to the health and physical education programs, some of which are offered below.

A health and physical education program can be put into any small school without additional number of staff if the school will only employ teachers who, in addition to training in the other subjects, have had some preparation in health and physical education. Practically all schools employ athletic coaches for the boys: these coaches could be selected with the health and physical education needs of the boys in mind rather than with thoughts alone of winning teams: athletic coaches who have had professional preparation in health and physical education are available. For the girls, the home economics teacher might well be selected from those teachers who have combined home economics and physical education in their major and minor fields of preparation: there are such young women available now and there will be still more available when the small town school demands women teachers with such training.⁵⁰

With properly trained teachers on the staff without having added to the number of teachers, there next comes the problem of adding health and physical education to the old curriculum, without increasing the teaching load. Alternation of subjects will solve the problem: alternating by years, by semesters, by weeks, or even by days within the week. For physical education the alternation by days would be the best plan.⁵¹

Another problem arises from the fact that in most small schools the children have to leave to help with home chores as soon as school is out. This renders it difficult to put on an after-school intramural program which is as great an educational need for these children as for city children. To meet this problem Broady suggests that the school should adopt the seven-period day, using the seventh period for extra-curricular activities in alternation. With this plan all would be out by 4:30 at the latest.⁵²

Student Leadership.—The use of student leaders and their motivation is discussed in a later chapter. They are importantly linked with the small town problem. Effective leaders should be able to conduct the

⁵⁰ Broady *op. cit.*, pp. 22-23.

⁵¹ *Ibid.*, p. 25.

⁵² *Ibid.*, pp. 26-27.

activities for the restricted children and to supplement in many important ways the lack of a teacher's close supervision. Too many school men and school boards think only of physical education in terms of winning teams so that when they feel inadequate to cope with that particular challenge, they surrender, having no physical education program at all. If these school men would think of physical education in terms of fun, play, learning to lead and to follow each other through physical activities, and of opportunities for *all* children, they would surely find some way to guide the children in the organization of their own physical education. Surely there is no school that does not have at least one boy and one girl who have leadership ability: with even so small a nucleus of leaders no school need suffer for total lack of a physical education program.

The Iowa Plan.—Those states without a state director of physical education can not help but be backward in the work in the rural communities. The Iowa State Society of Physical Education is attempting to offset this handicap by working with the State Superintendent in the absence of a State Director.⁵³ The Society has special committees at work as follows: for secondary schools, special committees have prepared a course of study and a state-wide point system for girls' athletics; for elementary schools, special committees have prepared a mimeographed bulletin of activities to be printed in the state teacher's magazine, the Director of the State Department of Public Health is to help produce a health education bulletin to be sponsored by the State Medical Association and to be printed in the state teacher's magazine, the County Superintendents are to assist in this work and a Physical Education Coordinator is to be appointed for each county by the President of the State Physical Education Association. The duty of the coordinator will be to help the county superintendent with institutes, conferences, demonstrations, etc. He is to be a person trained in physical education—one who, serving in some town of the county, will make this work a donation of professional service.

It is suggested that demonstrations be held at the meetings of the State Association of County Superintendents, State Physical Education Association, State Teachers Association with a rural school brought in for this demonstration with all essentials of the rural physical education program to be covered and that discussions be given at rural teachers meetings by some State Physical Education Committee member.

⁵³ Louis E. Hutto, "Iowa Physical Education Association Pinch Hits for State Director," *Journal of Health and Physical Education*, November, 1933, pp. 42, 57.

Suggested Programs.—The list of activities that follows was suggested for the small town and rural high school by the United States Bureau of Education ⁵⁴ as long ago as 1923. The list recommended six years later by the Society of State Directors ⁵⁵ checks with it so well that it may still stand as a model. It is as follows:

GIRLS		
<i>Fall</i>	<i>Winter</i>	<i>Spring</i>
Bar ball	Basketball	Baseball
Captain ball	Folk dancing	Hiking
Dodge ball	Indoor baseball	Short dashes and relays
Field ball	Individual Gymnastics	Standing and running,
Field hockey	(Posture work)	hop, step and jump
Hiking	Physical ability tests	Tennis
Soccer	Skating	Volleyball
Tennis	Volleyball	
Volleyball		

In criticism of this list field hockey might easily be prohibitive because of the expense of equipment and facilities, also tennis. A splendid all-year program for all types of girls may easily be built around seven activities alone: captain ball or bat ball or some similar game, hiking, volleyball, baseball, physical ability tests, folk dancing, and soccer. A teacher with a good imagination, a reasonable amount of initiative, and a love of nature can do much for children in the small town school with a program consisting of hiking only.

The activities chosen for the program should accommodate all children, including cripples and others who are handicapped in any way. Any activity that gives children wholesome fun and a chance to develop their personalities is an activity to use in the program. No game played spontaneously by children is too humble to be left out of consideration. The activities selected do not need to lend themselves to championships or record breaking feats: in fact, a school that puts on a program of intense competition with untrained teachers in charge cannot be condemned strongly enough.

The State Department of Education ⁵⁶ of West Virginia suggests the following daily program for the small school:

⁵⁴ Walter F. Cobb and Dorothy Hutchinson, *Suggestions for Physical Education Program for Small Secondary Schools*, Department of the Interior, Bureau of Education, Physical Education Series No. 3, Washington, 1923, pp. 11-12.

⁵⁵ Report of Committee on Rural School Health and Physical Education of Society of State Directors of Physical Education, New York, December 31, 1929.

⁵⁶ *Manual of Physical Education for Rural Schools* (3rd Edition), State Board of Education, West Virginia, 1928, p. 13.

- 9:00 a.m.—Opening.
 10:15 a.m.—3 minutes of exercise, using old material.
 12:20 p.m.—Quiet play under teacher's supervision.
 2:30 p.m.—15 minutes of play, learning new material.
 4:00 p.m.—Practice tests and competition between teams.

It would be well to divide the grade pupils into three groups with student leaders for each group: one of grades 1, 2, and 3; one of grades 4, 5, and 6; and one of grades 7 and 8. The teacher should give new material to each group every third day, being engaged with one group each day, and the leader should then work on the new material with his group the following days.⁵⁷ The teacher should give special instruction to the older pupils and they in turn should instruct the younger children.⁵⁸ A plan for the two- to four-room schools⁵⁹ is as follows:

- 2 room school
 each teacher teach physical education in her own room
- 3 room school
 1 teacher teach physical education to grades 1-3
 1 " " " " " girls of 4 grade up
 1 " " " " " boys of 4 grade up
- 4 room school
 1 teacher teach physical education to grades 1 and 2 and the
 smaller children of 3 grade
 1 " " the rest of 3 grade and all of 4 grade
 1 " " all the boys of 5 grade and up
 1 " " all the girls of 5 grade and up

Recess in Rural Schools.—The recess period has been discussed under the elementary school program but the problem is a somewhat different one in the small school on account of the intermingling of so many age groups. Since little has been written on this subject to which teachers can be referred, material⁶⁰ from the Austin Peay Normal Training School of Clarksville, Tennessee, is quoted at length as follows:

So few of the rural teachers understand or know how to make the most of this important period. As conducted in most schools it provided for fifteen minutes twice a day, when all children in the school are to go to the playground. Some stand; some stay inside; some sit; some walk around; some quarrel; and some few really play at something, even though there is no supervisor or director on the ground at all. Rain or shine this is what is to be expected and is what happens.

⁵⁷ Board of Education, West Virginia, *op. cit.*, p. 12.

⁵⁸ A. V. G. Upton, *Manual of Physical Education for Elementary Schools*, State Board of Education of West Virginia, 1932, p. 11.

⁵⁹ *Ibid.*, pp. 11-12.

⁶⁰ Jewel Nolen, "Organized Recess Period for Rural Schools," *Journal of Health and Physical Education*, April, 1933, pp. 35, 59-60.

The periods could be valuable to all children if some few things were analyzed and plans made for an improvement of the time.

For the rural recess period to be organized beneficially careful consideration should be made of the following:

First, the Teacher.—Does she have a knowledge of the possibilities of a so-called period? Is she interested in all phases of her work? Will she cooperate with her workers or teachers?

Second, the Time.—Just how much time is given to the period? Are there several short or a few long periods?

Third, the Number of Children.—How many children will be distributed over the playground? How many will be inside the house?

Fourth, the Ages.—What age children will be on the grounds? What ages will be in the house? Will the children of different ages be grouped, or will they all play together?

Fifth, Amount and Type of Space.—How large is the playground? Is it properly drained? Are few obstacles on the ground? How large are the halls and rooms? Do chairs or tables crowd all the space in the halls and rooms?

Sixth, the Equipment.—What is on the playground? How is the equipment made? Where did it come from? What games can be played indoors? What playthings or apparatus for the child's interest is in the house?

The time can be so arranged as to give each group, or every two grades, one thirty-minute and one forty-minute period on the playground when no other group is there; or the playground can be so divided that each group will have a thirty-minute and a forty-minute period with the teacher of that group with them. This amount of time, spent with the specified groups and the group's teacher, will allow sufficient time and a few enough children to really participate in games and play as they should.

The other children of the school will be with the other teachers and supervised by them in like manner. This will eliminate the wrangling and quarreling that naturally follows when all ages and sizes are on the ground at one time. In any school in the rural communities the children can be divided in groups for each teacher. The play space can be divided in like manner. All groups will play in the respective divisions or with the group with that teacher. Each group then can have the necessary play equipment and space for that age and size.

A plan for the games on rainy days may have to be worked out. The interest of the children will grow in proportion to the teachers' interest. Each group with its respective teacher will have sufficient space, time, equipment, and interest without petty problems coming up, when the teachers analyze their situations and cooperate in taking care of and making the most of the possibilities of the so-called recess periods.

Some of the very definite outcomes to be expected are given:

1. More play space for every group of children, which means more freedom.
2. Elimination of discipline problems. Most of these come from children who take no part in playing. Often too, they are caused by too crowded conditions.
3. A sufficient amount of time is given to be beneficial for both pupil and teacher.
4. Individual differences of the physically handicapped child, the less active child, and the child with abundant energy can all be taken care of because there is sufficient varied equipment on the playground and in the room. The equipment is suitable for the age and size of the child.
5. The children play more at home. They have learned a large number of games and how to make inexpensive playthings.
6. Every child plays. This is because every child feels his part in the game.
7. Pupils learn to organize games and play without the teacher.
8. Few children want to remain in during the period.
9. The teacher knows the child better. She has a better opportunity to become acquainted with the child's attitude toward other children in his play life.
10. The teacher feels better. Fresh air, sunshine, and exercise are just as important to the teacher as to the pupils.

THE COLLEGE PROGRAM

The Problem in the College Field.—There is very little actual work of college age level being offered in the colleges because the public schools send out such large numbers of students who are untrained physically at high school level. Many entering college students cannot even pass the elementary school level in some activities.

While the problem of most colleges is to introduce the students to a new world of recreational activities and to carry them through the elementary stages of achievement, with only an occasional group ready for intermediate work, it is however the problem, in a few colleges, to augment the instruction of students who are already adept in many fields. These two extremes are represented by those state universities that draw students largely from the rural districts and those women's colleges that attract a heavy enrollment of young women who have had meticulous physical training in exclusive preparatory schools. For example, while very few of the sum total of women students of the University of Nebraska enter college knowing how to swim, practically all of those who enter Vassar College are already skilled in this ac-

tivity: while at Nebraska, it is rare to find a group of entering girls who have ever experienced the delights of a game of field hockey, at Vassar most of them enter having had two to four years of experience in the game.

From a survey of the previous training of those women who entered the University of Nebraska in the fall of 1935 the following information was gleaned: 92.6 per cent came from the public schools, 52.6 per cent came from schools with an enrollment of less than two hundred, 52 per cent have had some required work in physical education and practically none had ever been a member of a group-sport team: those who had, had experienced basketball only.

Motor ability tests given to entering college freshmen show that very few have good body control. Why should it not be a requirement for high school graduation that every student must pass the fundamentals of body skills? Because of this failure of the secondary school the college must give the student this training and it must work with bodies not so plastic as in high school days.

Defense of the Elementary Work in the College Field.—College physical education programs are criticized because they deal so largely with elementary work but Ragsdale of the Department of Education of the University of Wisconsin defends this practice as follows:

In providing for teaching English and the foreign languages in college we recognize specifically an important principle—that a skill of fundamental importance which has not been attained earlier is properly included in the college curriculum. In English we carry this attitude to the extent of setting up sub-freshman courses for those who are especially deficient.

The general requirement for all students should be the attainment of a minimum standard of proficiency. As the curriculum of physical education in the elementary and the high schools is improved, such a standard may be reached before college life begins. Temporarily it is necessary to provide for the large numbers who have not yet reached such a minimum standard. By establishing such a standard universities will stimulate this phase of education in the lower schools.⁶¹

Program Needs.—An intelligent building of a college program calls for an understanding of what a girl needs to know and to be able to do in order to be physically educated when she leaves college. In

⁶¹ C. E. Ragsdale, "The Physical Aspect of a College Education," *Journal of Health and Physical Education*, October, 1932, pp. 4-5.

1930 the Society of Directors of Physical Education for College Women agreed that every college graduate should have:

1. Average ability in two individual sports
2. Average ability in one team sport
3. Average ability in body control in fundamental rhythms
4. Average ability in swimming
5. Ability to assume a good standing position
6. A knowledge and control of the skills used most in daily life.⁶²

Two years later Miss Katharine Hersey of the State University of Ohio outlined the program needs at college level as follows:

1. Extensive range of sports so students may experiment with any that interest them.
2. Sports which offer recreational possibilities not only during but beyond college days.
3. Emphasis on sports that interest the student, namely tennis, swimming or golf as named by Ohio students as the most desired.
4. Not necessarily a requirement in group sports at college level since student opinion shows each year lessened interest in group sports.⁶³

Miss Hersey challenged the advocates of a requirement in a group sport at college level on the ground that the socializing influence attributed to such sports can be obtained in innumerable other ways. She maintains that we should offer a variety of group sports in our programs for those who enjoy them, but that they should not be a requirement at college level. Two years later her contention was supported by the fact that when the requirement in physical education was dropped at the University of Chicago there was at once a decrease in the registrations for team games such as hockey, basketball, and baseball, and an increase in the registrations in the individual sports such as tennis, swimming, golf, rhythms, and tap dancing.⁶⁴ Four years later the same report came from the University of California (Berkeley).

As an outgrowth of a continued discussion of this topic at a later conference at Oberlin College, April, 1934, Miss Agnes Wayman, Director of Physical Education for Women at Barnard College, offered the following answer to the question, "When is a college girl physically educated?"

⁶² *Proceedings of Sixth Annual Conference at Wellesley College, March, 1930.*

⁶³ Katharine Hersey, "What Sport Abilities Make the Educated Person," Paper read before the Mid-West Society of Directors of Physical Education for College Women, Columbus, March, 1932.

⁶⁴ Society of Directors of Physical Education for College Women, *Report of the Conference, Oberlin College, Oberlin, Ohio, April 16-18, 1934, p. 18.*

1. When she knows her own strengths and weaknesses, her own potentialities.
2. When her body mechanics are good in so far as such lies within her power of accomplishment.
3. When she has at her command certain facts regarding her body, its functioning, and can apply those facts.
4. When she knows the food needs, the rest needs and the activity needs of her body.
5. When she has certain neuro-muscular skills for use, for pleasure, for relaxation, and for safety.
6. When she knows how to live so as to function at her optimum as well as at her maximum.
7. When she has formed certain mental, physical and emotional habits which will enrich her living.
8. When she has certain knowledge regarding sports and games and physical activities—knowledge of rules as well as knowledge of values.
9. When she has acquired certain attitudes toward play, health, recreation, sportsmanship, relaxation, etc.
10. When she has acquired certain appreciations of those, also of music and of art and of social relationships.

A program formulated to meet these needs is urgent.⁶⁵

Present Trends in College Programs.—The present trend to permit free election of activities beyond the passing of certain achievements calls to mind that it was only as recently as 1922 that college directors were talking in terms of permitting second year students free election if they could meet the sole requirement of a posture rating of C +.⁶⁶ Now posture is but one of the items on the list of achievements that are considered desirable. Following is a list of present trends in general:

1. There is a trend toward a two-year physical education requirement in the institutions studied.
2. The trend in program organization is toward the combined program which is partly prescribed and partly elective.
3. The range of activities taught are not influenced to any great extent by the size of the institutions. . . .

⁶⁵ The Society of Directors of Physical Education for Women in Colleges and Universities is conducting a survey of the activity preferences of college women, of their recognized needs, and of their secondary school physical education experiences. From this survey it hopes to build a curriculum based on needs and desires. (The Chairman of this committee is Miss Agnes Wayman, Director of Physical Education, Barnard College, Columbia University.)

⁶⁶ Gertrude Hawley, "Standardization of Physical Education in Colleges and Universities," *Bulletin*, Department of Hygiene, Wellesley College, 1921-22.

4. The geographical location has little effect on the range of activities taught.
5. Climatic conditions apparently have no influence on activities taught except in the matter of winter sports.
6. The trend in the general activity groups is toward individual sports, team sports and rhythmic.
7. The trend in the individual sports program is towards tennis.
8. Character dancing is the most popular activity in the rhythmic group.
9. The trend in the gymnastic group is toward tumbling.
10. Basketball is the most popular of the team sports.
11. The trend in the aquatics group is toward swimming.
12. Individual gymnastics and swimming are required more frequently than any other specific activities.
13. Tennis and basketball are the most popular intramural activities.
14. Gymnastics, rhythmic and team sports are offered more frequently in the Southern institutions than in any others.
15. Aquatics are more popular in the Western institutions than in those of any other section.
16. Individual sports are more prevalent in the New England section than in any other.
17. Aquatics, rhythmic and team sports are offered more frequently in medium-sized schools than in large or small institutions.
18. Individual sports are more prevalent in large institutions than in small or medium-sized schools.
19. Gymnastics are more important in small schools than in large or medium-sized institutions.⁶⁷

Activities of the College Program.—There is such a wide variety of activities for selection that there is little excuse for the impoverished programs found in many schools. Selection should be based upon:

. . . (1) differentiation of program to meet individual needs as determined by a physician's examination, (2) equalization of ability so that a pupil shall compete in athletics with those of his fellows possessing abilities similar to his own, and (3) freedom of choice in the selection of physical activities with consequent full responsibility for behavior . . . [all] important in the development of any individual boy or girl from the points of view of physical health, of ethics, and even of morals.⁶⁸

⁶⁷ Reported in a letter to the author from Ruth E. Warnke, May 31, 1934, giving the summary of her unpublished thesis, "A Survey of the Physical Education Activity Program for Women in State Colleges and Universities in the United States."

⁶⁸ Howard J. Savage, Harold Bentley, John T. McGovern and Dean F. Smiley, M.D., The Carnegie Foundation for the Advancement of Teaching, *Bulletin* No. 23, New York, 1929, p. 53.

TABLE IV
SPORTS USED IN THE PHYSICAL EDUCATION PROGRAMS
FOR COLLEGE WOMEN *

	Per Cent of Use by All Types of Colleges as a Single Group	Per Cent of Use in Women's Colleges	Per Cent of Use in Co-educational Colleges	Per Cent of Use in the Normal Colleges	Used Most by
1. Tennis.	96	100	95	91	Women's Colleges
2. Basketball.	96	91	97	83	Co-educational Colleges
3. Baseball (girls)	90	91	90	91	Women's and Normal Colleges
4. Field Hockey	87	95	85	67	Women's Colleges
5. Volleyball.	81	62	86	100	Normal Colleges
6. Swimming.	80	100	74	91	Women's Colleges
7. Archery.	73	87	69	58	Women's Colleges
8. Track and Field	61	79	56	0	Women's Colleges
9. Soccer.	58	54	59	67	Normal Colleges
10. Golf.	32	25	34	16	Co-ed. Colleges
11. Tenniquoits.	29	20	32	8	Co-ed. Colleges
12. Horseshoes.	28	33 $\frac{1}{8}$	28	33 $\frac{1}{8}$	Women's and Normal Colleges
13. Fencing.	18	16	19	8	Co-ed. Colleges
14. Rifle marksmanship	15	8	18	0	Co-ed. Colleges
15. Speedball.	14	4	16	25	Normal Colleges
16. Bowling.	13	8	15	50	Normal Colleges
17. League Baseball.	9	12	8	16	Normal Colleges
18. LaCrosse.	8	12	7	0	Women's Colleges
19. Quoits.	8	4	10	16	Normal Colleges
20. Paddle Tennis.	6	—1	7	8	Normal Colleges
21. Riding.	3	—1	—1	0	Women's Colleges and Co-ed. Colleges
22. Handball.	0.9	—1	0	0	Women's Colleges

* Information procured by author in 1930 in a national survey of 120 colleges.

The first principle listed above calls for a program of health protection and a variety of activities to meet a wide range of physical capacities; the second, for a program of testing and measuring; the third, for a careful scheduling which will actually permit choices and for a large range of activities to meet the preferences of a variety of types of personalities.

Richness of the College Program Content.—College programs for women always have been rich in content compared to public school programs. As long ago as 1890 Vassar College offered its students a variety of 8 activities; in 1900 Wellesley was offering 17 different activities; in 1920 Bryn Mawr had a list of 19 activities; and by 1930 Smith and Wellesley were each offering a program made up of 25 different activities.⁶⁹ In 1934 a range of 60 different activities was reported from 51 state colleges and universities.⁷⁰

This rich inventory of activities has not always been incorporated into the required program. Until 1906 the required work consisted of gymnastics alone with sports and dancing existing merely as an elective side issue. At that date Wellesley College added other activities to the required list and by 1925 all of the leading colleges had succumbed to the new order.⁷¹

Table IV shows the variety of sports in most common use in 1930 and the comparative popularity of each in the various types of colleges all over the country. The survey from which this information was gleaned did not cover activities other than sports.

Debatable Activities.—For college age the following activities are debatable:

Not safe.

- | | |
|--|--|
| 1. Basketball (boys' rules) | 6. Running long distances for speed |
| 2. Competition in games of high organization that is conducted with much at stake in the winning | 7. Soccer (boys' rules) |
| 3. Jumping without soft pit | 8. Swimming long distance for a record |
| 4. High diving | 9. Underwater swimming for a record |
| 5. Plunge for distance beyond 30 seconds | 10. Water polo (men's rules) |

Doubtful.

1. Jumping either high or broad in intense competition, even with a soft pit
2. Running long distances
3. Swimming long distances
4. Underwater swimming

⁶⁹ Dorothy Ainsworth, *The History of Physical Education in Colleges for Women*, Copyright, 1930. A. S. Barnes and Company, Publishers, New York, p. 32.

⁷⁰ Ruth Warnke, *op. cit.*

⁷¹ Dorothy Ainsworth, *op. cit.*, p. 31.

Floyd R. Eastwood of New York University has made a study of safety in Physical Education in the colleges, along the lines of Lloyd's safety study in the secondary school, from which activities for college women are classed as follows according to the incidence of accidents per 1,000 exposures:

- Very hazardous: apparatus @ 11.4 and riding @ 10.1.
- Highly hazardous: field hockey @ 7.8 and basketball @ 6.9.
- Hazardous: speedball @ 5.6 and games and relays @ 5.1.⁷²

Programs in Use in Colleges.—Examples of programs from the woman's college, the small coeducational college, and the large state university are given below as a cross section of the physical education program in the college field.⁷³

The Woman's College.—At Barnard College⁷⁴ each student is required to meet one of two requirements: either she must pass the average ability test in some one activity in each of the four classes of activities listed below or she must pass a time requirement within each of the four classes, meeting minimum requirements set up in each. When she fulfills one of these two requirements she is released from work in the department, which usually occurs in the senior year. The four groups are:

- | | |
|---|---|
| <p>A. Rhythmic Activity</p> <ol style="list-style-type: none"> 1. Natural dancing including Greek Games dancing 2. Folk dancing 3. Clogging and tap <p>B. Team Games</p> <ol style="list-style-type: none"> 1. Basketball 2. Baseball 3. Volleyball | <p>C. Individual Sports and Games</p> <ol style="list-style-type: none"> 1. Archery 2. Badminton 3. Tennis 4. Tennikoits 5. Fencing 6. Greek Games athletics (may count for 1 credit) <p>D. Swimming</p> <ol style="list-style-type: none"> 1. Tests for speed, form, endurance and diving 2. Water games 3. Life saving |
|---|---|

⁷² Arranged from abstract of thesis "A Study of Safety in College Physical Education" in partial fulfillment of the requirements for the degree of Doctor of Philosophy, School of Education, New York University, 1936.

⁷³ Although the educational function of the junior college in general is different from that of the traditional four-year college, the physical education problems of the two types of schools are similar since, in both, the problem is almost universally one of the first two college years involving a last educational opportunity to lay correct foundations of fundamentals of skills and the necessity to create a physical activity repertoire for adult leisure.

⁷⁴ Agnes Wayman, *Syllabus for Physical Education, Barnard College*, Columbia University Press, 1935, p. 18.

The Coeducational College.—The program at Oberlin College ⁷⁵ is as follows:

REQUIRED PROGRAM

FRESHMEN

<i>Fall</i>	<i>Winter</i>	<i>Spring</i>
Archery	Apparatus and Gymnastics	Archery
Hockey	Folk Dancing	Tennis
Tennis	Games and Stunts	Track
Volleyball	Swimming	
	Tap Dancing	
	Tumbling	

SOPHOMORES

<i>First Semester</i>	<i>Second Semester</i>
Apparatus and Gymnastics	Individual Games
Modern Dance	Modern Dance
National Dancing	National Dancing and Games
Swimming, elementary and intermediate	Swimming, intermediate
Tap Dancing	Tap Dancing
Team Games	Team Sports
	Tumbling

EXTRACURRICULAR PROGRAM

<i>Fall</i>	<i>Winter</i>	<i>Spring</i>
Archery	Badminton	Archery
Golf	Basketball	Badminton
Hockey	Modern Dance	Baseball
Swimming	Swimming	Golf
Tennis	Tap Dancing	Swimming
Volleyball		Volleyball

With the exception of a six-weeks' required period of Health Fundamentals (at which time each girl learns the result of her physical examination and is given both the theory of and practice in corrective measures), Freshmen have a choice of activities offered in their assigned gymnasium classes.

The Sophomore work is elective by semester—no student being allowed to repeat an activity, except by special permission.

The State University.—At the University of Minnesota the enrollment of women students is in the neighborhood of four thousand. In the fall of 1932, the Physical Education Department worked out the following plan for its program: each student must during her six quarters of the two years of required work acquire sufficient ability to pass a battery of six tests. If she cannot pass these tests upon entrance she must spend one quarter upon each activity. For each group she can pass she is excused for one quarter from the required work and may instead elect to take advanced work in some activity in which she can pass the elementary level.

⁷⁵ Information from letter of October, 1936, from Dr. Gertrude Moulton, Director of Physical Education for Women.

Classification tests are given all entering students and exemption levels set up by arbitrarily chosen scores. Meeting the requirements in any of the six fields, posture, individual sports, team sports, fundamentals, hygiene and swimming, exempts the student from further training in that field. The order in which a student fulfills her requirements are: 1. Posture; 2. Fundamentals; 3. Choice of remainder of activities. After the requirements are fulfilled the student is free to elect.⁷⁶

Since then, swimming has been grouped with the individual sports, tests in team games are not required of students in all colleges and the posture requirement has been postponed until the second year.⁷⁷

At the University of Nebraska all physical education work is designated as elementary, intermediate, or advanced: there are no courses as freshmen and sophomore courses although students register for their work by freshmen and sophomore registration numbers. The student enrolls in the activity of her choice in whatever level of achievement she is ready to enter, as determined first, by her own judgment from the announced prerequisites for each level of each activity, and second, by her instructor who gives her a placement test at the opening of the course. The only requirements are: individual gymnastics for those not physically able to engage in the ordinary activities; body mechanics for those who seriously need fundamental body training; and dancing for the Fine Arts students, as requested by the Dramatics Department. All other students freely elect from the wide range of activities offered, except that no student who can pass a certain placement test in any activity may continue at that level: she must pass on to a higher level or enter some other activity.

A girl may spend all four seasons of each of the two years in team activities or all in individual activities or in any combination of the two groups as she prefers and within her schedule confinements and her physical and motor ability limitations. The instructional staff bases its action in not requiring experience in a team sport on the supposition that, if a girl has not acquired a liking for group team games by college age, it is doubtful if enforced participation in them in college will give her a liking for them and that, if she has not yet learned to cooperate with others and to sacrifice self for the greater good of the greater number, it is extremely uncertain that required participation in

⁷⁶ Katherine Snell, "A College Program of Physical Education Developed from a Series of Classification Tests," *Paper* read before Mid-West Society of Directors of Physical Education for College Women, Wichita, March, 1933.

⁷⁷ Letter from Miss Snell, December 16, 1936.

college group team sports will aid in teaching her these things effectively at this late date.

The activity program for the year 1936-1937 was as follows:

FIRST SEMESTER

<i>Fall</i>	<i>Winter</i>
Archery, elementary	Archery (indoor), two levels
Body mechanics	Basketball, elementary
Golf, elementary and intermediate	Body mechanics
Miscellaneous individual sports	Folk dancing, elementary
Modern dance, three levels	Miscellaneous individual sports
Individual gymnastics	Modern dance, three levels
Soccer, elementary	Individual gymnastics
Swimming, three levels	Swimming, three levels
Tap dancing, elementary	Tap dancing, two levels
Tennis, two levels	Volleyball, elementary

SECOND SEMESTER

<i>Winter</i>	<i>Spring</i>
Archery, elementary	Archery, two levels
Basketball, elementary	Baseball, elementary
Body mechanics	Bowling, intermediate
Bowling, elementary	Modern dance, three levels
Modern dance, three levels	Folk dancing, intermediate
Folk dancing, elementary	Individual gymnastics
Golf, elementary	Swimming, three levels
Individual gymnastics	Tap dancing, intermediate and advanced
Swimming, three levels	Tennis, two levels
Tap dancing, three levels	
Volleyball	

THE COEDUCATIONAL PROGRAM IN PHYSICAL EDUCATION

Boys and girls play together naturally in life situations; not only play together but work together at skills, helping each other in the learning process. In their play, however, they recognize certain activities as purely "boy activities," others as purely "girl activities," in the pursuit of which the sexes ordinarily do not mingle except in cases of "sissy" boys and "tomboy" girls. Physical education has long recognized this differentiation in its school program but, contrary to the real life situation, it has gone so far as to separate the sexes in *all* physical activities beyond the fifth and sixth grade.

Mixed recreation, as recognized officially in the school program in physical activity forms, other than social dancing, is a development of the early 1930's and the swing toward mixed class work in certain activities is still more recent, clearly dating from the middle 1930's. Coeducational schools would do well to watch this trend and to take advantage of its educational offering.

The Activities of a Coeducational Program.—All sports which do not call for personal contact and which are normally enjoyed together by boys and girls or men and women offer a fertile field for experimentation for coeducational class work. The activities need not be confined to sports for in life situations the sexes intermingle in many other activities such as folk, tap, and social dancing.

Educational Advantages of Coeducational Activities.—Children should be taught in early adolescence the amenities of play situations in mixed groups. This phase of their education has direct bearing on their guidance in the amenities of social intercourse. Through coeducational classes in physical education boys and girls should become accustomed to playing together correctly and without self-consciousness in the presence of the opposite sex. With careful guidance the boys should come to know the courtesies due their girl opponents and their girl teammates; they should learn how to assist girls in game situations, keeping hands off according to the code of a gentleman. Such things are not considered merely old-fashioned by those who care about the fine points of fine living. Boys need to learn to tame their strength and to adapt it to the girl's lesser capacities for the sake of their mutual pleasure in playing together. Girls need to play with boys in order to gain from them a better and quicker understanding of sportsmanship than they get from playing only with each other. They can learn much from boys of the "give and take" spirit that is wholesome. They need to learn how to accept graciously from boys such attentions as are due them as girls but at the same time they also need to learn to assume their share of the responsibilities of play situations: they must learn how to be real partners with boys—co-workers, equal sharers in both victories and defeat.

Such lessons learned in play in school days should carry over to a later happily shared recreational life: the capacity to play happily together means success in personal relationships.

Problems of Mixed Classes.—Correct costume for mixed classes should be, for girls, sports dress such as most schools now permit girls to wear for archery, tennis, and golf classes. This should mean sharp discipline for those who wear dresses other than of sports type. For boys, whatever a boy might correctly wear on tennis court or golf links should be appropriate. In both cases it would probably mean school clothes with a change of shoes. There is no excuse to permit boys and girls to take class work together in the "undress" of many present-day

gymnasium costumes—"undress" which may be quite correct in private situations.

Such costuming would mean in most instances no doubt a sacrificing of showers but perhaps the "socializing" gain from such class work would offset this physical loss. A teacher with ingenuity will, however, find ways to meet this problem.

It has long been maintained that men should teach boys in physical education and that women should teach girls. In mixed work some classes should be taught by the woman physical education teacher and some by the man but the girls of all mixed classes should be supervised as to costumes, showers, health needs, etc., by the woman teacher even though the class is not actually taught by her and the same attention should be given to the boys by the man teacher. In fact there should be fine cooperation on the part of both teachers in the division of the work, in the scheduling of the classes, in the assignment of pupils, and in the management of the after-school tournaments which would naturally follow such class work.

The actual class period should be one of instruction with the teacher serving as an instructor and not merely as a sports referee. The lessons for these periods should be planned with definite progression, hour by hour, and with achievement tests and standards set up for passing the course, as is planned for all other instructional class work of the school.

CHAPTER V

FACILITIES FOR THE PHYSICAL EDUCATION PROGRAM

“. . . lofty designs must close in like effects.”

—BROWNING.

THE CHILDREN'S CHARTER pledges "for every child a school which is safe from hazards, sanitary, properly equipped, lighted, and ventilated."¹ In the main, our public schools have inadequate gymnasium facilities; especially is this true in the elementary schools and in the high schools of the largest cities and of the very small towns.² Recent surveys show that there are gymnasiums in only 80 per cent of the high schools of Ohio, the majority of which are of the auditorium-gymnasium type;³ in only 62 per cent of the high schools of New York;⁴ in only 51 per cent of those of the Dakotas;⁵ and in only 44 per cent of those of New Hampshire.⁶ A few cities do have fine physical education facilities for their elementary schools. Kansas City boasts of a gymnasium in 58 lower grade schools while Beverly, Massachusetts,⁷ has either a playroom or a gymnasium in each of its schools.

In recent years a few of the larger high schools have provided splendid physical education plants, notably Trenton, New Jersey, with its new senior high school with four large gymnasiums and two swimming pools and the River Forest Township High School in Oak Park, Illinois, with its two separate buildings for physical education, one for

¹ White House Conference on Child Health and Protection, *White House Conference 1930*, The Century Company, New York, 1931, p. 47.

² Laurentine B. Collins, "Curriculum Study for the Public Schools Section of the American Physical Education Association," *Research Quarterly*, December, 1934, pp. 114-17.

³ A. W. Shields and T. C. Holy, "Auditorium-Gymnasium Facilities in 513 Ohio Schools," *News Letter* No. 48, National Physical Education Service of National Recreation Association, New York, March, 1932, p. 7.

⁴ National Physical Education Service, *News Letter* No. 33, National Recreation Association, New York, October 1, 1930.

⁵ National Physical Education Service, *News Letter* No. 41, National Recreation Association, New York, June, 1931, p. 8.

⁶ Mary Van Horn, "State News," *News Letter* No. 28, Women's Division of National Amateur Athletic Federation, New York, June 1, 1932, p. 1.

⁷ National Physical Education Service, *News Letter* No. 91, National Recreation Association, June, 1936.

boys and one for girls. The girls' building is a noteworthy contribution to the recent trend towards beauty in design in physical education plants.

In the colleges we find on the whole that the facilities for women are meager indeed compared to those for men. Noteworthy exceptions are those at Stanford University, Oregon Agriculture College, the University of California (in both the Berkeley and Los Angeles branches), and the Universities of Texas, Minnesota, Colorado, Illinois and Washington, all of which have splendid physical education buildings for women. Hearst Memorial Gymnasium at Berkeley is magnificent in its architectural design and in the scope of its facilities; the women's gymnasium at Stanford is a rare gem, small but exquisitely executed; that



FIG. 10.—Front view of the women's physical education building at the University of Texas. (Courtesy of Miss Anna Hiss, Director of the Department of Physical Education for Women.)

at the University of Texas palatial in its structure, sumptuous in its appointments. (Figs. 10 and 11.)

Of the women's colleges, Vassar, Smith and North Carolina College for Women have fine new buildings and Wellesley has one in the process of construction. The State Universities of Ohio and Michigan have each "made a gesture" toward the women in the way of a field house to supplement an inadequate gymnasium but these facilities combined are woefully meager in comparison with the magnificent structures these universities have provided for their men students.

It is common practice in all parts of the country, in the large universities as well as in the small colleges, in the well endowed schools together with the poor ones, to give the women students the make-

shifts the men have discarded. As far as physical education facilities and equipment are concerned especially true is the charge that in the educational world men dine on caviar and wine while the women subsist on roast beef and cabbage.⁸

In the many situations where there are no physical education facili-

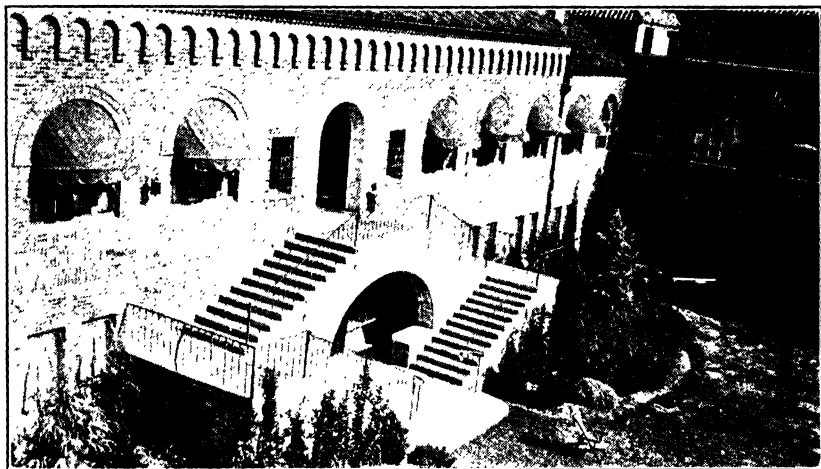


FIG. 11.—A corner of the patio of the women's physical education building at the University of Texas.

ties the teachers should make use of hallways and out-of-door spaces. The lack of facilities is not sufficient excuse for the lack of a program.

STANDARDS FOR BUILDINGS

More than ten years ago the National Education Association, through its Committee on School House Planning, said:

No junior or senior high school conforms to modern standards unless it provides . . . exercise for every boy and girl, and no building is modern if it does not make such provision possible. Comparatively few buildings measure up to modern standards for physical education and many of those most recently erected have serious defects. . . . The gymnasium must be a "hall of health" with an abundance of fresh air and sunlight; there must be offices where the directors can give careful physical examinations; . . . there must be lockers and dressing rooms in order that pupils may put on appropriate gymnasium clothing; and there must be adequate showers so that every

⁸ Virginia Woolf, *A Room of One's Own*. Hogarth Company, London, 1929.

student will have a bath of proper temperature at the close of every gymnasium period.⁹

As long ago as 1922 the Commission on the Reorganization of Secondary Education recommended for every school two gymnasium floors; one for girls and one for boys.¹⁰ Later estimates called for one gymnasium floor for each twenty sections of a platoon system¹¹ and one for each six hundred pupils in the high schools.¹² In 1930 the school board of Providence, Rhode Island, established the standard of two gymnasiums for every new building, 40 by 60 feet for the elementary grades, 45 to 55 feet wide by 65 to 70 feet long for junior high schools and 60 by 90 feet for the senior high schools with two auxiliary smaller gymnasiums for corrective work for the larger schools.¹³ The College Physical Directors Association recommends (1937) a gymnasium 65 by 90 feet for the average school.¹⁴

THE GYMNASIUM

For location, the gymnasium should be in a wing or at one end of the school building—not in the basement or center of the building: the choicest arrangement is the physical education unit separate from the main structure. The girls' gymnasium should not be situated where it can be thrown open as an auxiliary room for the boys' spectator sports program since such an arrangement brings constant interruption to the girls' program. To avoid still other interruptions it also should not be combined with an auditorium.

The Size of the Room.—Physical education programs can, if necessary, be managed in a small space. In many schools they are managed surprisingly well under such circumstances but, if at all possible, the exercise floor should be at least 60 feet by 90 feet in size, in order to accommodate at one time many squads in recreational sports. Space

⁹ Frank Irving Cooper, Report of Committee, *School House Planning*, National Education Association, Washington, 1925, p. 144.

¹⁰ Commission of the National Education Association on the Reorganization of Secondary Education, *High School Buildings and Grounds*, Department of Interior, Bureau of Education, Bulletin No. 23, Washington, 1922, p. 11.

¹¹ Cooper, *op. cit.*, p. 25.

¹² P. Roy Brammell, *Health Work and Physical Education*, Bulletin No. 17, Monograph No. 28, Department of Interior, Office Of Education, Washington, 1932, p. 86.

¹³ National Physical Education Service, *News Letter* No. 31, National Recreation Association, New York, June 1, 1930, p. 6.

¹⁴ Wm. R. La Porte, *The Physical Education Curriculum*, published by College Physical Education Association, 1937.

for spectators is of minor importance in educational work. The ceiling should have a minimum clearance of 18 feet, preferably 24.

The Floor.—The floor should be of hard maple, three-fourths inch thick laid blind-nailed and oiled, with noise proofing in the under structure, and laid over hard pine which has been laid diagonally.¹⁵

Before oiling and finishing, the lines for court markings should be scratched into the wood and then painted. Different colors should be used to mark the courts for different games such as black for basketball, white for tennis, orange for shuffleboard, bright green for baseball, etc.: red is not a satisfactory color for court lines. If single shuffleboard scoring diagrams are painted on the floor, one in each corner of the room, they may appear decorative whereas they become a series of confusing lines and figures if the two companion targets are painted closely end to end at the center of each side line: the game is quite satisfactory with single targets. Equally confusing would be permanent lines for a variety of overlapping courts which vary but slightly as do those for volleyball, badminton, tenniquoits, and paddle tennis. These courts should be chalked on as needed using tennis and basketball lines for guide lines.

Lighting.—The gymnasium should be lighted by indirect type of lighting with reflectors of procelain, white enamel, X-ray, or Cahill.¹⁶ If the lights are overhead they should be flush with the ceiling and covered with wire glass.¹⁷

Walls.—The walls should be constructed with consideration for acoustical effects. Cork walls are one of the noteworthy features of the new gymnasium which is a separate unit to the high school of Wakefield, Michigan.¹⁸ There should be large areas of wall space free of obstruction and with smooth finish for a height of at least twelve feet so they may be used for tennis practice, handball, etc. The heating units should be recessed in the walls and placed six to eight feet above the floor.¹⁹

Windows.—Twenty-five percent of the wall space should be windows. They should be pivot and louvre type rather than casement

¹⁵ Strayer and Engelhardt, *Standards for High School Buildings*, Bureau of Publications, Teacher's College, Columbia University, New York, 1924, p. 70.

¹⁶ Committee on Construction, "Trends in Physical Education Facilities and Gymnasium Construction," *Research Quarterly* of the A.P.E.A., May, 1930, p. 46.

¹⁷ *Ibid.*

¹⁸ George A. Hagen, "New Features in Gymnasium Planning," *Journal of Health and Physical Education*, June, 1935, p. 21.

¹⁹ Committee on Construction, *loc. cit.*

type.²⁰ On at least one side of the room they should be placed at floor level.²¹ At the two ends of the room they should be at least six feet above the floor. All windows should be inclosed in wire protectors.

Doors.—There should be double doors leading to the gymnasium with automatic closing attachment and so hung that one section will swing only inward for entrance and the other only outward for exit.

THE DRESSING ROOM

A light and easily ventilated place should be selected for the location of the dressing room. If a basement location cannot be avoided special attention should be given to proper lighting and ventilation.

Dressing Compartments.—The relative values of private, semi-private, and open dressing compartments are discussed in a later chapter. In the following material there is merely a discussion of each type as a facility.

Individual Booths.—Although there has been in recent years a trend towards open dressing rooms some of the latest and most exceptional buildings have used the private dressing booth arrangement. For such a plan there should be one booth for each student who is enrolled at the peak hour of the day. In most situations one group is dressed and ready to depart by the time the following group arrives so that the booths are vacated in time. Figures 12, 13, and 14 show three different arrangements of private booths.

For size, 2 feet 10 inches by 3 feet is sufficient although 3 feet by 4 feet is preferred. For partitions, anything from plaster board or gas piping, hung with canvas curtains, to paneled steel and marble is in use; paneled steel is the most popular for the average school budget.

The lower edge of the partitions should clear the floor for cleaning purposes. A clearance of no more than six inches from the floor with wire netting across the top is recommended to protect from thieving.²² Each booth should be furnished with a built-in bench, from four to six clothes hooks, and a small mirror.

Group Dressing Booths.—The semi-private dressing room plan is that of a number of large compartments, each to accommodate a small group of girls at one time. In some buildings there are enough of these

²⁰ Commission on The Reorganization of Secondary Education of National Education Association, *loc. cit.*

²¹ Cooper, *loc. cit.*, p. 148.

²² William R. La Porte, "University of Southern California Physical Education Hall," *Journal of Health and Physical Education*, September, 1931, p. 6.

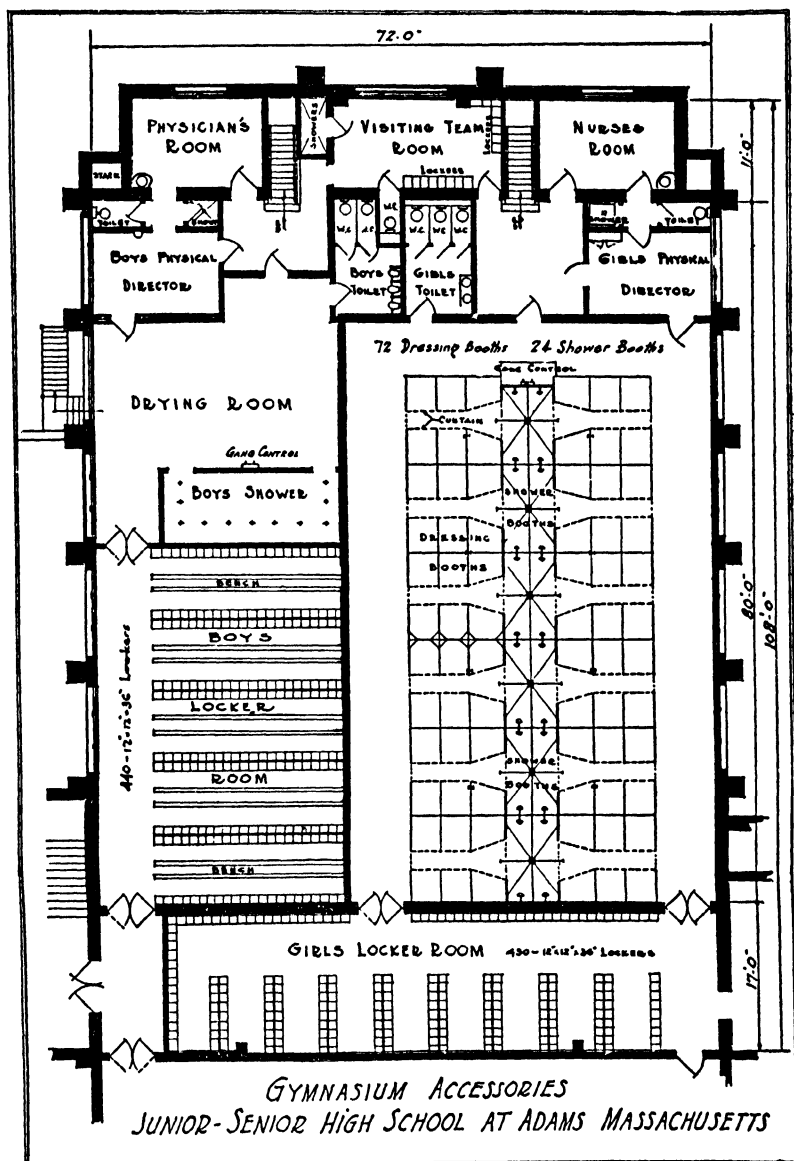


FIG. 12.—Private dressing booth arrangement in girls' dressing room with three booths to a shower. (Chart 59 in Committee Report School House Planning, National Education Association, Washington, 1925, p. 158. Reproduced by courtesy of the Association.)

be total number of students assigned to that unit within a given term. This is a troublesome detail which can be avoided by furnishing for each compartment as many temporary storage lockers as there will be students using that unit at the peak hour and by placing the permanent

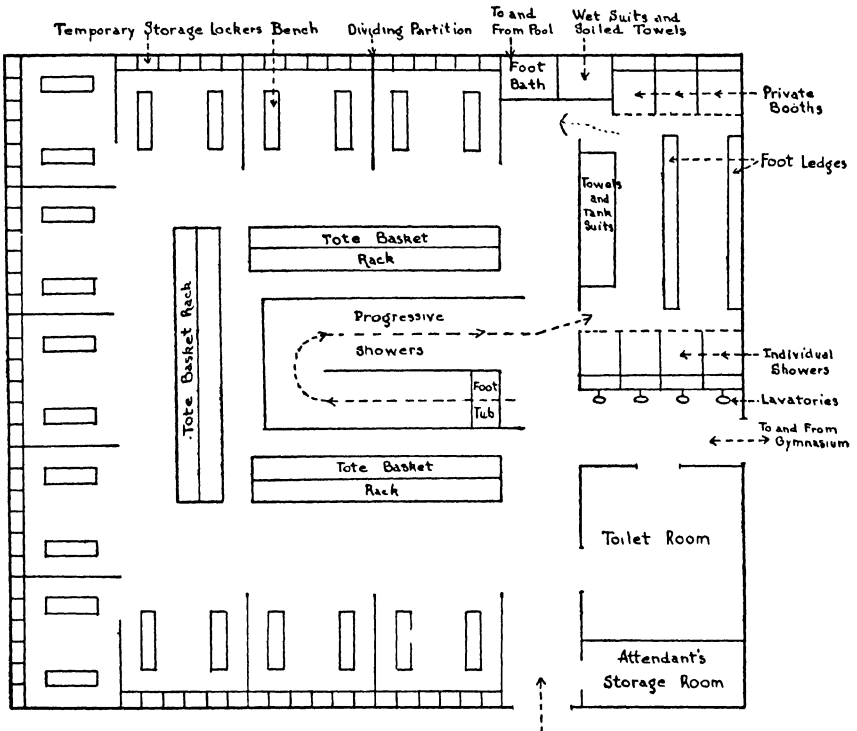


FIG. 15.—Group dressing booths showing an arrangement to care for six to twelve students to a booth with temporary storage lockers, dividing partitions with clothes hooks to facilitate dressing, and two benches in each booth. Note tote basket rack sections near each compartment and drying room at upper right with open and private arrangement. Walls around showers run to the ceiling.

storage lockers outside the dressing compartments but close at hand in the same room.

A tote basket system works well with this plan with each section of baskets placed near the dressing compartments which have been assigned the particular students who use those baskets.

3. A third arrangement varies the two-room arrangement by placing the showers and dressing compartments together and using a sepa-

rate room for lockers, as shown in Figure 12 (p. 135). This, as in the first plan, calls for temporary storage lockers and a tote basket system to save time.

The National Y.W.C.A. has adopted as its preferred standard such a unit plan with three or four dressing booths to one shower compartment.²⁴ This eliminates passage from one room to another and its attendant requirement of bath sheets for those not caring to go nude, which is an important consideration in organizations which serve the present generation of adult women.

4. The one-unit plan places all facilities in one room with a given number of dressing compartments and lockers grouped in a unit around each shower, as shown in Figure 13 (p. 136). This has been a popular arrangement for over thirty years although the present trend is decidedly away from having showers and lockers in the same room.

Lockers.—There should be a permanent storage space of some sort for each person taking part in the program within a given term and temporary storage sufficient for each person who comes at the peak hour. If this space cannot be vacated before the next group needs it, there must be additional temporary storage space—enough to supply each person in two consecutive groups.

Temporary Storage.—The place provided to lock street clothing and miscellaneous personal property should be in connection with the dressing unit. These lockers might well be placed to form a part of the partitions of the unit. They may be either full or half-length. The full length (72 inches long by 15 inches wide by 15 inches deep) is necessary in situations where long coats must be stored temporarily. One temporary storage space should be provided for every four to six permanent storage lockers.

Permanent Storage.—There is a variety of permanent storage equipment in common use. *Half length lockers* are satisfactory in a system in which the attendance is regular and the registration constant. They are sufficient for storage of most types of individual sports equipment, which is an important item in a department that does not furnish all equipment. They also permit permanent storage of sports wraps which is equally important in a department that sends its classes out of doors in cold weather and does not permit the students to wear their street coats.

Wherever large numbers must be provided for and the space is

²⁴ Young Women's Christian Association, *Health Education Department*, The Woman's Press, New York, p. 51.

limited, *tote baskets* should be used. Regardless of space and numbers, they are sufficient for all work where the class members need storage only for gymnasium shoes and wraps. They are much less expensive than lockers. The most commonly used basket is of stout wire with large mesh, 12 by 15 by 15 inches in size and provided with a metal tab for the class number or name of the person to whom it is assigned.

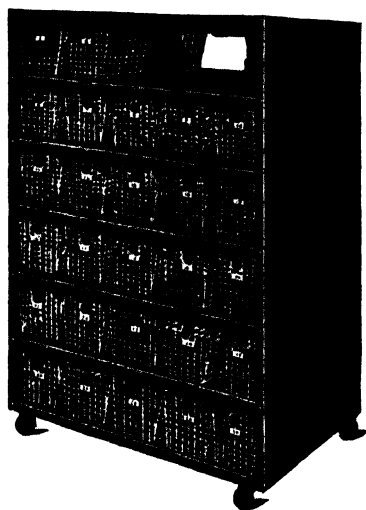
Some administrators do not favor the tote basket system in the mistaken belief that it calls for an attendant. This is not necessarily the case. It is possible to procure racks into which the student can lock her own basket and can reclaim it at any time the rack is available. Three types of racks are shown in Figure 16. A fourth type is open on all sides permitting better circulation of air through the baskets.

Some schools, not able to afford commercial tote baskets and storage lockers, have solved the storage problem to a certain extent by using *straw market baskets* with the students' names attached by means of strips of adhesive tape. The baskets are kept on shelves in a locked room. At the opening of the hour they are handed out to the students containing the gymnasium clothing and before class work begins they are returned to the shelves containing the street clothes and belongings of the class members. At the end of the class period they are again handed to the students who replace in them their gymnasium clothes and return them a second time to be placed on the shelves where they are locked up until the class meets again.

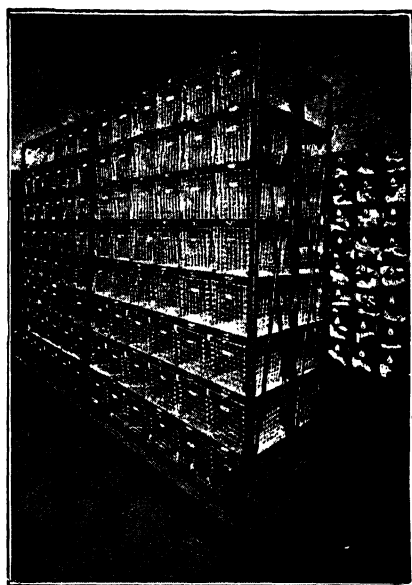
If a school can afford temporary storage equipment these market baskets can still be used to good advantage for permanent storage, while much time will be saved over the above system in not having to return the baskets to be locked during class hour. With this arrangement there should be supplied wall hooks for the baskets while empty: students should not be allowed to leave them lying around on the floor.

Comparable in size to tote baskets are *box lockers* which are enclosed, with ventilation through the perforations in the door. They have the disadvantage of not being movable as are the baskets. But where a stationary locker is desired and a small space is sufficient, they represent a large saving in expense over the full and half-length locker.

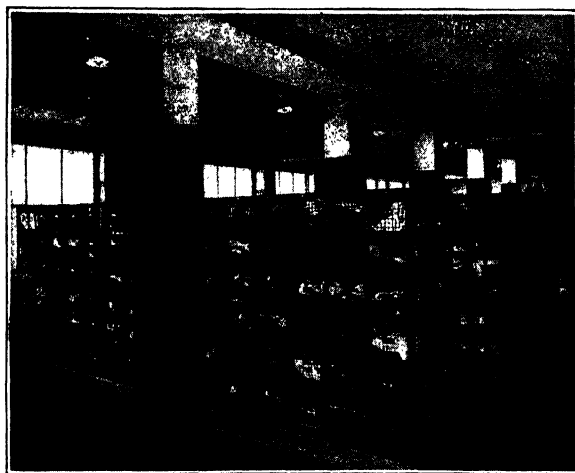
Shoe lockers are in use in many schools where the pupils leave their belongings in their home room lockers and need only a storage place for shoes. These lockers can be placed conveniently in the gymnasium room itself or in an adjoining room and, when recessed in the wall, are quite out of the way. These sections usually come in single and double tiers exposing ten to forty-eight shoe shelves to the open-



A



B



C

FIG. 16.—Three types of tote basket containers: A, basket truck; B, basket racks on cement base, each six baskets wide by eight baskets high; C, racks five baskets wide by six baskets high. (Reproduced by courtesy of the Durabilt Steel Locker Company, Aurora, Illinois.)

ing.²⁵ (Fig. 17.) All such lockers installed in a gymnasium room should have the "round hole perforated" doors instead of the "louvred" doors,²⁶ which have a slight projection of steel above each slit opening, which in itself may readily be a danger to a child who might fall or run

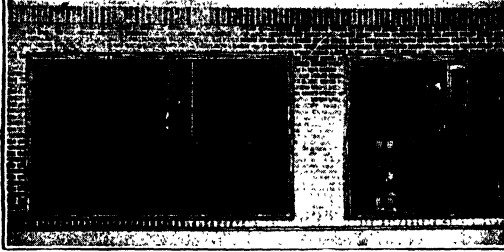


FIG. 17.—Double tier shoe lockers recessed in wall of gymnasium room and with lift latch flush with the wall, as used in the public schools of Des Moines. (Reproduced by courtesy of the Durabilt Steel Locker Company, Aurora, Illinois.)

against the locker compartment. In these lockers the standard shoe opening is six inches wide, six inches high and twelve inches deep.²⁷

Walls.—Glazed hollow tile for dressing room walls is superior to and less expensive than plaster.²⁸ If the dressing room is in connection with the showers, non-absorbent partitions should be used.

THE SHOWER ROOM

Types of Shower Room Arrangements.—There are many different patterns of shower facilities as follows:

1. The individual shower with individual control in a private booth.
2. The individual shower with individual control in a semi-private booth.
3. The individual shower with individual control in an open room.
4. The central-control individual shower in a private booth.
5. The central-control individual shower in a semi-private booth.
6. The central-control individual shower in an open booth.
7. The individually-controlled one-group outlet shower to each semi-private booth.
8. The individually-controlled one-group outlet shower in an open room.

²⁵ D. V. Trapp, "Solving Gymnasium Storage Problems," *Journal of Health and Physical Education*, October, 1930, p. 36.

²⁶ *Ibid.*

²⁷ *Ibid.*

²⁸ La Porte, *op. cit.*

9. The same as No. 7 except with central control with other group showers in the other booths.
10. The same as No. 8 except with central control of all group outlets.
11. Central-control showers with outlets evenly spaced all over the ceiling in an open room.
12. The same as No. 11 except with outlets added to the walls.
13. Central-control shower in open room with one large outlet spraying the entire room.
14. Zone or progressive showers in an open room with water of varying degrees of temperature at varying stages of progress about the room.
15. Corridor showers: the same as No. 14 except that the showers are in a corridor so that the bather must pass through all zones from the entrance to the exit with no opportunity to skip certain temperatures at choice as is possible in the open room zone showers.

The relation of the showers to the dressing unit should be given serious consideration. It is a saving of expense to have all shower plumbing confined to one room rather than scattered all over the dressing rooms in small units. Also the administration of a shower-taking policy is more effective with the showers in one unit. Also by this arrangement it is possible to steam the shower space—a desirable procedure—without doing damage to lockers and their contents.

Partitions to showers which are connected with dressing rooms should extend to the ceiling and each shower should have a high sill at its entrance. A certain amount of moisture from showers cannot be prevented from entering lockers if they are close by. To avoid this, showers and lockers should be installed in separate rooms.

Central Control System.—Control of water supply and temperature at a central source is rapidly coming into common use. An ingenious plumbing department can readily devise a makeshift system if the school cannot afford the regulation commercial equipment. This system requires a few individual control showers for the use of late comers. An attendant can be trained to attend to the controls or the teacher herself may accompany her class to the shower room and urge them on to participation in this part of the class work while she, from her observation platform, works the controls.

Open and Gang Showers.—The term "gang showers" is used carelessly by many people, who refer merely to "open showers," i.e., an open room where many persons take showers at the same time, each however using an individual shower unit. A gang shower means that a group of persons share one shower together whether it be from only one or several jointly used shower outlets.

The most economical in water use is the gang shower with one great central water-head but for girls this calls for caps so that individual water-heads at varying heights are preferred.

Zone or Progressive Showers.—Of all arrangements, the zone or progressive corridor shower is the ideal. (Figs. 18 and 19.) The

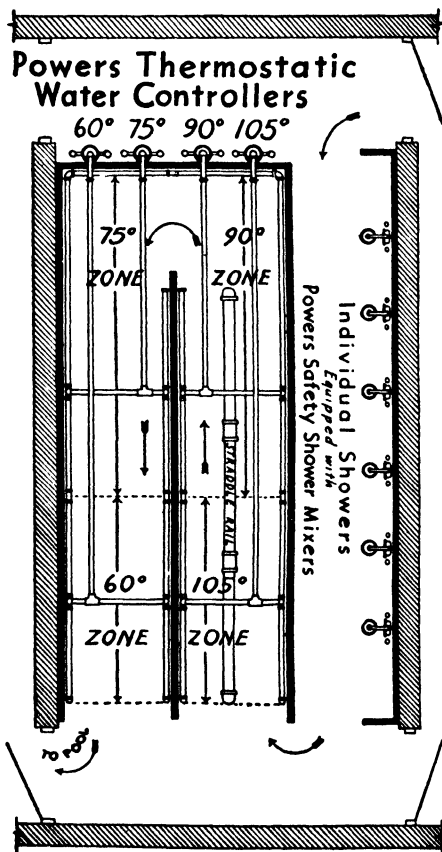


FIG. 18.—Typical zone shower installation. (Reproduced by courtesy of The Powers Regulator Company, Chicago, from their Bulletin No. 258, p. 17.)

usual arrangement has four zones of water temperature, the student entering the corridor at the 90 degree zone, moving on through a continuous wall of water to a zone of 98 degrees, on to one of 85 degrees and then finishing at 70 degrees. At the boys' Field House at Oak Park, Illinois, where this type has been recently installed, 50 boys a minute can be passed through the 40-foot shower corridor.²⁹

Although the author knows of no progressive corridor showers in use for women at this date, she sees no reason why they would not be appropriate for girls in all situations where open showers are in use. They are more hygienic with the progressive temperatures than the shower as ordinarily taken and they are certainly saving of space and time.

A footbath of a good antiseptic solution should be a part of the installation since all bathers use the same

limited space, thus increasing foot hazards.

Figure 15 (p. 138) is the author's suggestion for girls of a combination of semi-private dressing booths with temporary lockers and

²⁹ Oak Park and River Forest Township High School, *Program of Dedication of Physical Education Buildings*, Oak Park, Illinois, March 10, 1929.

nearly tote basket storage, progressive corridor showers with a few individual booths for those who might object to open showers, and an open drying room with a few private compartments apart from the dressing booths. Note that the plan calls for a footbath at the entrance to the shower and at both the entrance to and exit from the pool room.

Figure 18 (p. 144) shows the "straddle rail," an innovation which is coming into use in boys' shower rooms since its introduction in the corridor showers leading to the pool room in the magnificent new physical education building at Yale; in the early stages of progress through these showers liquid soap, as well as water, is shot at the bather from all directions.

Shower Heads.—No school should attempt to carry on physical education work for girls without at least four shower heads³⁰ whether in private booths or an open room. Where individual shower heads are used throughout, there should be one for each two-fifths of the peak load. They should be so placed that the water will not be directed outside the shower room. In individual booths, the shower head should be installed at one side pointing towards the rear and opposite side. They should be placed at shoulder height; this requires some tall, some short, and some medium height installations. The shower head should be of a type that can be easily cleaned.

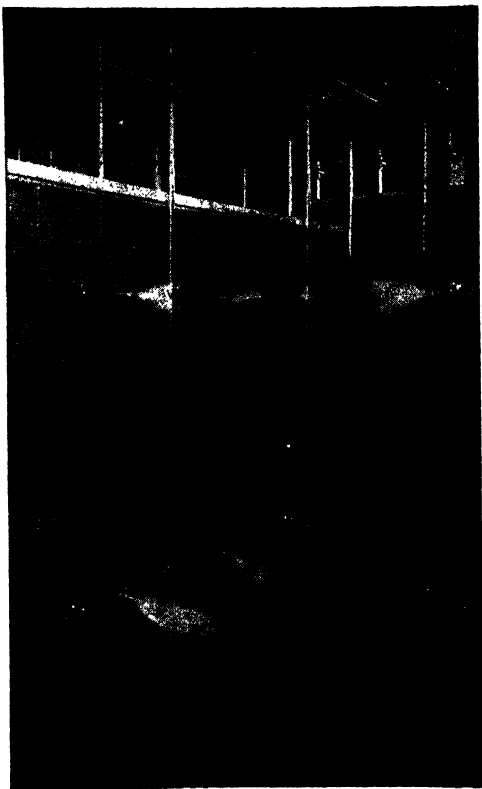


FIG. 19.—Progressive shower installation as used in the high school of Melrose, Massachusetts. (Reproduced by courtesy of The Powers Regulator Company, Chicago, Illinois.)

³⁰ Oberteuffer, *op. cit.*, p. 117.

AUXILIARY ROOMS

Attendants' Rooms.—Each attendant should have his own store-room for his own cleaning equipment and supplies and for a reserve supply of work materials. The janitor should have a work-bench where he can repair equipment and inflate balls. The dressing room matrons should have a workroom where they can mend examining robes, cos-

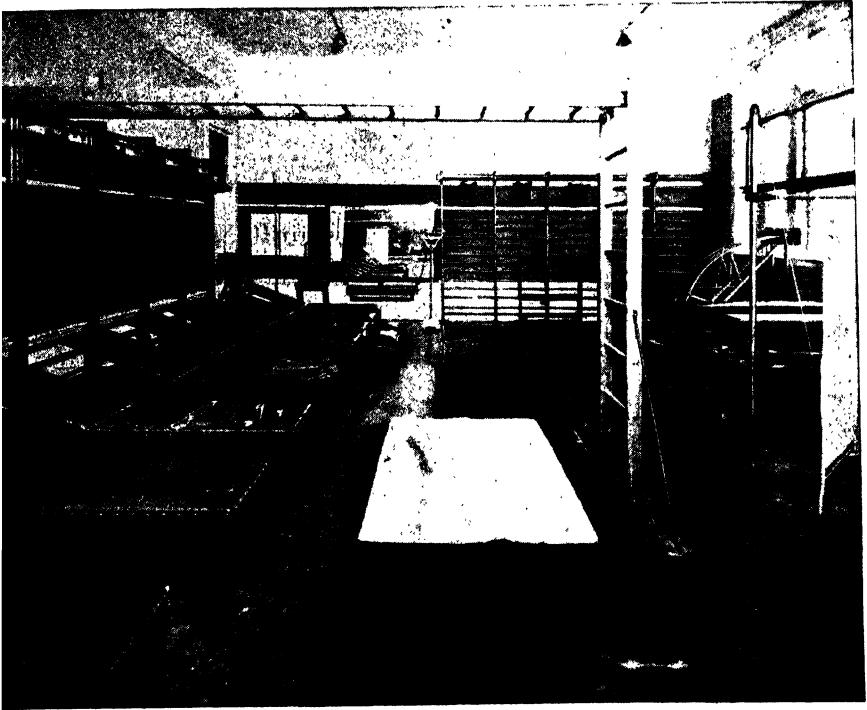


FIG. 20.—A modern corrective room. Los Angeles had 135 such rooms in 1930 with a teacher assigned to supervise each. (Reproduced by courtesy of Dr. Sven Lokrantz, Public Schools, Los Angeles.)

tumes, etc. There should also be arrangements and facilities for attendants to check out equipment to students.

Corrective Room.—There should be a space set aside for the restricted work of those who are physically unable to enter the ordinary activities program. It should be at least 20 feet by 30 feet in size. The school systems of both Evanston and Winnetka, Illinois, have provided corrective rooms in their new buildings,⁸¹ as also has that of Oak Park, another Chicago suburb. (See Figure 9, page 48, and Figure 20 above.)

⁸¹ Hagen, *op. cit.*, p. 23.

Dance Studio.—Many colleges and universities have special rooms set aside for the dance, some of which are very beautiful, creating an artistic atmosphere which greatly enhances the work carried on in them. Notably among these are the studios at Leland Stanford University, Vassar and Smith colleges, Oregon Agricultural College, State College of Washington, the University of Southern California and the state universities of Wisconsin, Texas, Washington, and California (both at Berkeley and Los Angeles). (Fig. 21.)

Examining Room.—There should be an examining room, near the director's office, with provision for taking posture tracings or shad-

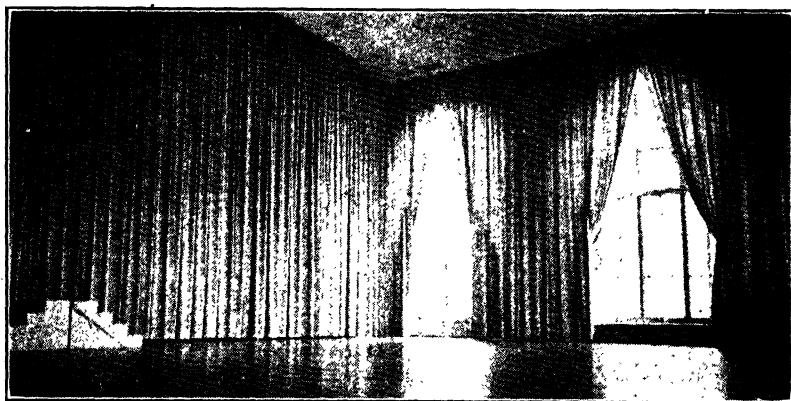


FIG. 21.—The dance studio in the women's physical education building at the University of Texas.

owgraphs. It should be at least 22 feet long and with a minimum floor area of 200 square feet.³²

Game Room.—If possible a game room apart from the main gymnasium should be provided for ping pong, shuffleboard and similar recreational games. Figure 22 shows a roof adapted for a play room.

Offices.—There should be office space for all instructors with opportunities to change into gymnastic costume in private. There should be at least one shower for the private use of faculty members. The office of one of the staff should be near the main exercise room and dressing rooms. The swimming instructor's office should open into the pool room with a large window overlooking the room for constant supervision. In elementary schools with a gymnasium it is well to have glass partitions to command a view of both the gymnasium and dressing rooms.

³² Oberteuffer, *op. cit.*

All light switches to the main rooms of the physical education unit should be located in or near the physical education office.

Rest Room.—No school should be without a rest room. It should be well ventilated and should be in as quiet a location as possible. The minimum size should be 160 square feet.³³ Where it is absolutely impossible to have a rest room, provision should be made to screen off, for a rest compartment, a corner of the most restful room available.

Swimming Pool.—It is better to have no pool than to have one not properly constructed by strict rules of sanitation and in consideration



HIGH ABOVE THE NOISE AND DUST OF THE CITY'S STREETS

FIG. 22.—*Roof playground in Philadelphia. (Reproduced from Division of Physical and Health Education, Report for the Year Ended August 31, 1931, Board of Education, Philadelphia, frontispiece, by courtesy of Mr. Grover Mueller, Supervisor of Physical Education.)*

of safety measures or to have one not properly managed according to sanitary and safety procedures after it is constructed. Too many pools are unsanitary, either because of construction or management, or both, and are therefore a menace to the health of the bathers. Two modern pools are shown in Figures 23 and 24.

A properly constructed and managed pool calls for a system of filtration, purification, and heating of the water, for adequate dressing rooms, showers, and toilets close at hand. It calls for constant expert testing of the water and for instant administrative attention to unfavor-

³³ Oberteuffer, *op. cit.*

able water conditions. It calls for unrelenting health and cleanliness inspection of all bathers, for constant preventive measures against certain conditions that find favorable existence about pools. It calls for safety procedures and class supervision beyond that of a gymnasium for an accident in a pool might easily mean loss of life. All of the problems of upkeep, management, and construction should be recognized before undertaking the building of a pool, for swimming is an expensive activity.

The showers connected with the swimming pool should be reached from the dressing room only by passage through a toilet room. It is well to have drying units in connection with the showers; also containers or

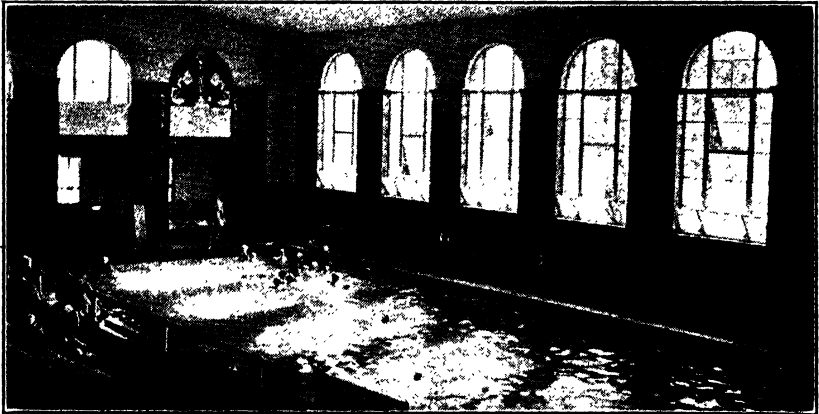


FIG. 23.—*The swimming pool in the women's physical education building at the University of Texas.*

clothes chutes for wet suits so that no one can return to the dressing room from a swimming class until she has shed her wet suit, taken a shower, and has at least dried her feet.

The Crane Pool for Women at Oberlin College has the following unusual features:

1. Size: 35 by 75 feet with an auxiliary pool 35 by 15 feet adjacent to its shallow end.
2. Main pool: "spoon" bottom with sixty per cent not more than 5 feet deep, varying from 4 to 9 feet in depth.
3. Auxiliary pool: $3\frac{1}{2}$ feet deep at the two ends to 4 feet deep in the center.
4. Markings for swimming lanes in two colors, one at sides of lanes and another at ends for warning.



FIG. 24.—The swimming pool in the girls' physical education building, Oak Park and River Forest Township High School, Oak Park, Illinois. (Courtesy of the Camera Club and the Department of Physical Education for Girls.)

5. Connections for underwater vacuum cleaner: two in the large pool and one in the small one.

6. Foot bath entrance: so large it cannot be avoided and with both inlet and outlet on the regular circulating system near the shallow end of the pool.

7. Ceiling: 12 feet above highest diving board and 20 feet above the water line.

8. Overhead beams: none in diving area but in other to reduce reverberation.

9. Heating space near ceiling to prevent condensation.

10. Double skylight.

11. Natural lighting equal to more than one-half the floor space.

12. Glass in windows: diffused.

13. Space for land drill near instruction pool.

14. Doors: all of metal, non-ferrous, and non-expansive material.

15. Pool basin: built entirely above the basement floor so that all around its four sides and under its shallow end there is ample space for an archery range and other activities, besides storage rooms, and most important of all, ready accessibility to all plumbing and fixtures.

Toilet Room.—In addition to the main toilet room of the school building there should be one in connection with the gymnasium dressing room and yet another near the showers supplying the pool room if the first toilet room is not so located. There should be one seat for each twenty in the largest class and one lavatory for each fifty.³⁴ The floor should slant to a drain so it may be flushed daily.

OUTDOOR FACILITIES

In the words of Woods Hutchinson, "better a playground without a school than a school without a playground." The amount of play space a school needs depends upon the enrollment, the type of games the children play, or will play if space is provided, and the load the space must carry at any one period. It is true that one acre of playing space used many times a day is equivalent to many acres used at the same time, but there are times when much larger groups of children are out at play than at other times and space must be provided for the maximum load. Numbers alone are not a sufficient guide since older children require more space than do younger ones.

Various organizations and authorities have recommended the amount of play space necessary under varying conditions. A number of

³⁴ Strayer and Engelhardt, *op. cit.*, pp. 34, 39.

TABLE V
RECOMMENDED PLAY SPACE ALLOTMENT

	National Educa- tion Association (1)	National Recrea- tion Association (2)	Recreational Congress of 1923 (3)	Society of State Directors (4)	Various State Boards of Education (5)
School of 0-400 enrollment...	.....	.....	.....	1 field of 3-4 acres	.....
School of 400-600 enrollment...	.....	.....	.....	1 field of 3 acres and 1 field of 4 acres	.....
School of 600-800 enrollment...	.....	.....	.....	1 field of 4 acres and 1 field of 5 acres	.....
Rural 1-2 room school.....	2-3 acres	.....	2 acres	.....	.....
Rural 3-4 room school.....	4 acres	.....	4 acres	.....	.....
An elementary school.....	.....	5 acres	8 acres	.....	5 acres
An intermediate school.....	.....	.....	10-12 acres	.....	No less than 5 acres
A school housing all grades	.....	.....	.....	.....	7+ acres
A junior high school.....	.....	.....	.....	.....	10 acres
A senior high school.....	.....	.....	.....	.....	5-10 acres
A rural high school.....	10 acres or more	.....	.....	.....	12 acres
A traditional high school.....	.....	.....	.....	.....	.....

(1) National Physical Education Service, *News Letter*, No. 55, National Recreation Association, New York, December, 1932.
 (2) National Recreation Association, "Space Requirements for the Children's Playground," *Recreation*, August and September, 1934.
 (3) Report of Committee on Rural School Health and Physical Education of the Society of State Directors of Physical Education, Conference, New York, December 31, 1929, p. 3.
 (4) J. B. Nash, "Report of the Committee on High School Administrative Standards for the Directors of Physical Education," *Research Quarterly of A.P.E.A.*, May, 1932, p. 127.
 (5) Composite of material from various State Manuals.

these statements are collected together in Table V for ready reference.³⁵ Authorities generally agree that there should be added to the minimum play space additional space for each child above 600 enrollment. Nash says 200 square feet per child.³⁶

Many schools have more play space than the minimum standards require. Fifteen acres for a school has been found to be a good average for the better high schools.³⁷ Greensboro, North Carolina, has 150 acres for its high school, Columbia, Missouri, has 65 acres, and East High School of Wichita has 70.9 acres. In the latter school the girls have 5 soccer fields and 13 tennis courts in addition to a variety of other fields and courts for their own exclusive use. One school included in the national survey of secondary education has its own golf course while others use municipal courses.³⁸

The outdoor physical education facilities at Smith College³⁹ are, in all probabilities, the most extensive in proportion to the student enrollment of any facilities for women to be found in any American school. For an enrollment of approximately nineteen hundred students it maintains the following facilities:

1 field containing:	1 field of 20 acres containing:	Riding stables
20 tennis courts	4 hockey fields	1 riding ring
10 archery lanes	1 soccer field	1 ice skating rink
1 running track	1 baseball diamond	2 outing cabins
	1 bridle path	1 boat house
	1 golf driving range	1 crew house
	A number of badminton courts	

Surfacing.—Whether activities can be carried on out of doors for most of the year depends more upon the surfacing than upon the weather. Money spent on expensive apparatus, both indoor and out, would be much better spent if put into surfacing costs so that in all seasons the moment unfavorable weather conditions subside the children may be out at play. There are many kinds of surfacing which merit consideration. References for investigation are listed on page 166.

³⁵ To many the term "acre," though familiar, is but a vague unit of measurement: an acre equals 43,560 square feet; a regulation football field (the within-bounds playing space) contains 1.54+ acres; a field 69.56+ yards square equals one acre; a standard city block contains from 6½ to 7 acres.

³⁶ J. B. Nash, *The Organization and Administration of Playgrounds and Recreation*, copyright, 1927, A. S. Barnes and Company, Publishers, New York, p. 70.

³⁷ P. Roy Brammell, *op. cit.*, p. 85.

³⁸ *Ibid.*

³⁹ Department of Health and Physical Education, *Physical Education Bulletin*, p. 10.

Fencing.—Playing fields adjacent to streets require fences not only as a safety measure but also to keep pedestrians from cutting across the fields, thus interfering with the games. A cheap fence is poor economy—especially so in a neighborhood with unmanageable boys. A good fence may be decorative as well as useful. Chain link is the preferred type. It should be high enough to keep within its confines all balls in ordinary flight.

Tennis courts require a backstop no less than eight feet high—preferably twelve—otherwise the playing is ruined by ball-chasing.

Landscaping.—For both beauty and shade there should be trees along the outer borders of the playing fields and vines should be trained to cover the fence. In addition there should be shrubs along the outside of the fence or, if no fence, along the border to serve as a boundary. The National Recreation Association recommends that in laying out fields an allowance of from 6,000 to 10,000 square feet be made for landscaping purposes.⁴⁰

Dr. Gertrude Moulton of Oberlin College has solicited the assistance of the State Forestry Department in a program of beautifying the women's playing fields. With thought for a distant future they have planted hundreds of young trees on a large plot of ground adjacent to the women's fields. It is the hope that in years to come this planting will give a stretch of woods for instructional work in outing activities.

Laying Out the Fields.—It is important to use to the best advantage whatever space is available. Planning the layout of a field is much the same problem as studying the layout of a dress pattern on a given piece of material before cutting it out. The pattern laid on in one manner is wasteful of the goods; in another, certain pieces will run the wrong way of the cloth. After a study of the problem one particular way of laying out the varied pieces is found to be the best way. And so it is with laying out athletic fields. Plans on paper should come first.

The amount of space needed for each sport is shown in Table VI, the first column indicating the actual playing space and the second the total space necessary including the out-of-bounds territory required. In planning the layout, it should be kept in mind that tennis courts should run north and south as should fields and courts for all games in which players must look upward much of the time. Hockey, soccer, and speed-ball fields may run east and west if necessary. In baseball diamonds the home plate should be in either the northeast or southeast corner.

⁴⁰ National Recreation Association, *Space Requirements for the Children's Playground*, Reprint from *Recreation*, August and September, 1934, p. 12.

TABLE VI
DIMENSIONS OF FACILITIES AND EQUIPMENT FOR GIRLS' SPORTS

Sport	Playing Space	Size of Plot Needed	Width of Net or Goal	Height of Net or Goal	Size of Ball or Substitute	Size of Stick	Direction for Layout
Archery	Outdoor: 10 ft. X 30-60 yds. Indoor: 10 X 30-50 ft.	10 ft. X 70-100 yds. 10 X 35-50 ft.	4 ft. diameter 16 in. diameter	4 ft. from floor or ground to center of bull's-eye	Arrows: 24 in. aver. for high school; 26-28 in., college	Bow: 5 ft., H.S.; 5-6 ft., college	N and S: E and W, if can reverse placement morning and afternoon
Badminton	17X44 ft.	20X50 ft.	3X24 ft.	5 ft. at center; 5 ft. 1 in., sides	Shuttlecock or small sponge ball	Regulation racket or small paddle	N and S
Baseball	35 ft. square, Jr. H.S. 45 ft. square, Sr. H.S. 60 ft. square, College	70 ft. square 90 ft. square 100 ft. square	15 in. square bases 12 in. square home plate	30 in. pitcher's distance, Jr. H.S. 33-36 in. for H.S. and College	14 in., Jr. H.S.; 12 in., Sr. H.S. and College	Bat: 2½ in. diameter, 34 in. long or less	Home plate to NE or SW
Basketball	35 X 70 ft., H.S. 45 X 90 ft., College	40X75 ft., H.S. 50X100 ft., College	18 in. diameter	10 ft.	30-31 in. circumference, 12 lbs. pressure		
Billboard Tennis	18X30 ft.	25X50 ft.	18 ft.	12 ft.	Tennis ball	Tennis racket	N and S
Golf Cage	9X12 ft.	9X20 ft.	9X10 ft.	10 ft.	Golf balls	Golf club	
Hand Ball	20X34 ft.	24X40 ft.	16X20 ft.	16 ft.	Tennis ball		N and S

TABLE VI—Continued
 DIMENSIONS OF FACILITIES AND EQUIPMENT FOR GIRLS' SPORTS

Sport	Playing Space	Size of Plot Needed	Width of Net or Goal	Height of Net or Goal	Size of Ball or Substitute	Size of Stick	Direction for Layout
Hockey	45-60 yds. wide by 85-100 yds. long	55-70 yds. wide by 95-110 yds. long	4 yds.	7 ft.	Cricket ball, 5½ ounces.	17-23-oz. stick	
Horseshoes	10×30 ft.	10×50 ft.	6 ft. square	10 in. above ground	2 - 2½-lb. shoe; less for grades	11 in. by 3 ft.	
Jumping: Broad	6×20 ft.	6×33 ft.	8 in.×3 ft., take-off board				
High	8×14 ft.	8×33 ft.	8 ft.	2 posts, 6 ft. above ground		Fish pole	
Paddle Tennis	18×39 ft.	28×60 ft.	2×20 ft.	2 ft. 2 in., center; 2 ft. 4 in., sides	Sponge-rubber ball—small	Paddle: 8×9 in., with 5 in. handle	N and S
Quoitennis*	16×30 ft.	20×34 ft.	1×18 ft.	5 ft., center; 5 ft. 1 in. sides	Rubber ring; diameter, 7 in.; hole, 4¾ in.		N and S
Shuffleboard	4½×32 ft., English; 6×45 ft., American; 3×28 ft., Modified	7×40 ft. 8×53 ft. 6×36 ft.	4¼×8 ft. 6 ft.×8 ft. 10 in. 3×4 ft.		4×1½ in. or 6½×1 in. or 6 in. disc	Cue: 5 ft. 9 in.	

TABLE VI—Continued
DIMENSIONS OF FACILITIES AND EQUIPMENT FOR GIRLS' SPORTS

Sport	Playing Space	Size of Plot Needed	Width of Net or Goal	Height of Net or Goal	Size of Ball or Substitute	Size of Stick	Direction for Layout
Soccer	40-60 yds. wide by 80-100 yds. long	50-70 yds. wide by 110-130 yds. long	6 yds.	8 ft.	27-28 in. circumference, 10 lb. pressure		
Soccer-Baseball	45×45 ft.	90×90 ft.	15 in. square		Soccer ball		
Speedball	40-60 yds. wide by 80-100 yds. long	50-70 yds. wide by 110-130 yds. long	18 ft. 6 in.	10 ft.	Soccer ball		N and S
Tennis	36×78 ft.	56 × 108 ft. for one; 102 × 108 ft. for two	3×42 ft.	3 ft. × 6 in.	Regulation tennis ball	Regulation racket	N and S
Tether Tennis	12 ft. square—doubles 6 ft. square—singles	20 ft. square 10 ft. square	20 ft. between poles if 2 courts	10-13 ft. above ground	Tennis ball in case with string	Tennis racket or paddle	
Track	4×60 yds.	4×65 yds.					
Volleyball	30×60 ft.	35×65 ft.	3×32 ft.	7 ft. 6 in.	26-27 in. circumference, 7-8 lb. pressure		N and S

* By the courtesy of Parker Brothers, Inc., Salem, Mass., owners of the trade-mark QUORITENNIS.

Archery lanes may run east and west if the targets can be placed at the west end in the morning and at the east in the afternoon.

Attention should be given to the proper relation of various activities to each other, the necessity of backstops and their wise placement, and the safety of players on one field in relation to the equipment in use on adjacent fields. After a careful study, as in the case of the dress pattern, it will be seen that there is one best way to lay out the field taking all requirements into consideration and retaining, when necessary to cut, the correct numbers and types of courts in relation to the program to be offered.

Since ten acres is the minimum amount recommended for high schools, it is proper to assume that half of this space shall be reserved for the girls' field. Figure 74 (p. 525) shows a five-acre plot⁴¹ laid out for as great a variety of recreational sports as one would expect to find in the better schools. In varying seasons certain fields can be used for varying activities, thus serving a multiple purpose. This five-acre space can be made to accommodate 292 to 388 girls all active at one time and engaged in a possible range of 14 different activities as follows:

1 soccer or speedball field, 22 players	4 volleyball courts, 48-80 players
1 hockey field, 22 players	2 horseshoe pitching lanes, 8-16 players
12 tennis courts, 48 players	4 badminton, paddle ball and aerial darts courts, 16-32 players
1 golf driving cage, 12-24 players	4 paddle tennis courts, 16 players
7 double tether tennis courts, 28 players	6 shuffleboard courts, 24 players
7 quoitennis courts, 25-56 players	
1 baseball diamond, 20 players	

The janitor should be trained to mark all courts, to inspect them on his own initiative, and to mark them as he finds they need it.

Marking grounds is tiresome and disagreeable work at the best. A great deal of it has to be done, and it pays to get ready for it, and to have conveniences easily accessible and always in order.

As an aid to measuring and marking, a twenty-five or fifty foot tape line is desirable. But still more important is a stout cord at least one hundred feet long, with a bit of leather or perhaps red flannel stitched on every ten feet, and wound on a reel, home-made, of course. These little conveniences mean much in playground work.

⁴¹ A five-acre plot equals a little more than the playing space of 3 football fields. To be exact it is 217,800 square feet of space. It can of course vary in shape and dimensions in an endless variety. The author has chosen arbitrarily a rectangular field 207 yards long by 116 $\frac{2}{3}$ yards wide which relative proportions are commonly found in athletic fields. These dimensions give a field less than 5 acres by 450 square feet—a space about the size of a quoitennis court. All fields and courts laid out on this plot cover the out-of-bounds requirement in addition to the actual playing spaces, with additional margins for extra safety between the courts of the more hazardous activities.

A cord like this is better than a regular tape measure because it can be used when the ground or grass is wet, or when a guide line is needed in making boundary lines with the line marker.⁴²

DIMENSIONS AND DESIGNS OF VARIOUS COURTS AND FIELDS

No attempt is made here to give full descriptions of official courts and fields since the author assumes that no instructor would attempt to teach a game without having at hand a copy of the official rules which contain full details of all necessary facilities and equipment. The following material is offered merely to inform those who plan the physical education program of the sizes and types of spaces that are necessary for the various activities so that efficient plans can be made relating all activities. (See Table VI, p. 155, for quick reference.)

Archery Range.—For each target there should be a shooting lane 10 feet wide to accommodate four archers at a time. Since a class might shoot in two sections advantageously, there need be but one lane for every eight persons at the peak load. In length the range should accommodate the standard rounds requiring from 30 to 60 yards: this means 100 to 150 yards in maximum length since there should be a good margin for safety. Lacking sufficient margin, there should be a safety backstop of boards or straw bales, or, better still, an embankment such as some fields boast of in their natural setting.

Pieces of wood, brick, or concrete, buried flush with the ground, should mark the stance at the various distances from the target line with similar markers indicating the places for the targets to be set up. The target markers should have metal hooks similar to those used on gymnasium floors for the attachment of net-standard guy-ropes. Guy-wires should be dropped from the center of the target tripod and attached to these hooks to steady the targets against the wind. The saving in broken arrows caused from falling targets compensates for this added care.⁴³

Baseball Diamond for Girls.—The Women's Athletic Section of the American Physical Education Association,⁴⁴ designates four sizes

⁴² J. T. Giles, *Individual Athletic Activities*, State Department of Public Instruction, Madison, Wisconsin, 1925, p. 81.

⁴³ As suggested by Neilson and Van Hagen, *op. cit.*, p. 37.

⁴⁴ Women's Editorial Rules Committee, *Outdoor Baseball, Official Baseball Guide*, Spalding Athletic Series, No. 121R, American Sports Publishing Company, New York, 1935, Chart enclosure.

of official baseball diamonds for girls, each depending upon the size of ball and style of pitching to be used, as follows:

	SIZE OF DIAMOND (each side)	PITCHING DISTANCE	DISTANCE ACROSS DIAMOND	SIZE OF BALL	TYPE OF PITCHING
	Feet	Feet	Feet	Inches	
1.	35	30	49½	14	Underhand
2.	45	35	63	12	Underhand
3.	60	36	84¾	12	Over or Underhand
4.	65	40	92	12 or 9	Overhand

Elementary school girls should use the 35 foot diamond and the 14 inch ball, and high school girls, the 45 or 60 foot diamond and the 12 inch ball. Although many college girls use the 60 or 65 foot diamond and the 9 or 12 inch ball, a large following prefers the 45 foot diamond and the 12 inch ball. The official rules committee on softball recommended in December, 1936, that girls use the 35 foot diamond—a country-wide demand from the schools brought this ruling about.⁴⁵

Regardless of the size of the diamond all bases should be 15 inches square, and the home plate 12 inches square.

Basketball Courts.—According to the official basketball rules for women the regulation size of the playing space is 45 by 90 feet for college girls and 35 by 70 feet for high school girls. Where the playing floor in a college is less than 70 feet long, or in a high school less than 60 feet long, it is recommended that it be divided into two equal courts instead of the usual three. (See Figs. 75 and 75a, pp. 526 and 527.) An outdoor court should run north and south in its length.

Golf Putting Course.—A good golf putting course of nine holes can be made in a space of five thousand square feet,⁴⁶ a space about the size of two tennis courts. It should be made with standard golf putting turf: standard golf cups should be used and the course should be fenced in.⁴⁷ A clock golf putting green requires much less space—a circle with a diameter of from twenty to thirty feet. The circumference should be cut into twelve equal parts with markers set at each of the twelve points numbered one to twelve clockwise about the circle. A cup for the balls should be sunk within the circle at any spot well off center: it should be 4 inches in diameter and 4 inches deep.⁴⁸

⁴⁵ *News Letter*, No. 96, National Recreation Association, New York City, 1937.

⁴⁶ D. Oberteuffer, *op. cit.*, p. 121.

⁴⁷ *Ibid.*

⁴⁸ Spalding's Athletic Library, Pamphlet No. 129R, 1936, offers good suggestions on p. 30.

Hockey, Soccer, and Speedball Fields.—The same space is frequently reserved for these three games with the markings of one superimposed upon one of the others. Figure 76 (p. 528) has been arranged to show the relative designs of the three fields drawn to scale for use on one field. By the official rules for all three games the fields may vary in width from 40 to 60 yards and in length from 80 to 100 yards except that a hockey field should never be narrower than 45 yards nor shorter than 85 yards. Regardless of the size of all three fields the inner design dimensions should not vary from the figures for the official courts.

Horseshoe Pitching Lanes.—Horseshoe pitching requires for each lane a space 10 feet wide by 50 feet long. There should be 30 feet between the pegs with 10 feet beyond each peg and 10 feet between those of adjoining courts. At each peg there should be a pitch-board frame 6 feet square.⁴⁹ The pegs should be driven in the ground inclined slightly toward each other and they should extend ten inches above the ground. The pitcher's box surrounding them should be "outlined by 2 by 6 lumber, set in the ground with the narrow edge up . . . and filled with clay to a depth of 6 inches."⁵⁰

Shuffleboard Courts.—This game requires a smooth surface over which the discs can be pushed or shoved. If concrete slab cannot be laid out on the playing field, stretches of concrete walks might be marked off for this game. At many resorts a large area sufficient to care for two or more courts laid side by side is hard surfaced and surrounded by benches for players and spectators. Permanent scoring diagrams or targets are painted in place. The standard court has two scoring diagrams but, if for any reason it is not desirable to paint the double diagram on the area to be used, the game may still be played satisfactorily with only the one scoring frame. This is not a "space saver," merely a saving in markings which may be an important factor if sidewalks or indoor floor spaces are being used and it is desirable not to have too much marking on them.

There is a diversity of opinion in regard to the size of the scoring diagrams. In the first place there are two commonly known forms; the English, using a four-inch disc, and the American, using a six and one-half inch disc. The English form is used almost exclusively on ship-

⁴⁹ Spalding's Athletic Library, *op. cit.*

⁵⁰ Rules and Editorial Committee of the Women's Athletic Section of American Physical Education Association, *Athletic Handbook*, Spalding Athletic Library, No. 115R, American Sports Publishing Company, New York, 1935-1936, p. 43.

board. For it there are two sets of dimensions. Both Post and Shirley⁵¹ and Wayman⁵² give each square of the diagram as one foot in dimension while the Women's Athletic Editorial Committee⁵³ lists it as nineteen inches lengthwise of the diagram and seventeen inches in width. Whichever size is used, the starting line (the far edge of the scoring diagram) should be placed twenty-four feet from the nearer border of the opposite scoring diagram with an allowance of free space at the ends and sides.

The American form of the game uses a larger scoring frame than the English form and one of different shape and scoring units. The staff of Intramural Sports of the University of Michigan offers a form which is a modification of the American game and requires smaller playing space.⁵⁴ (For the designs of the three diagrams see Fig. 25.)

Tennis Courts and Their Variations.—Tennis courts may never vary in size as may basketball, hockey, soccer, and many other sports fields. But there are variations to the game which use smaller courts and less expensive equipment. The regulation game itself calls for a plot 56 feet wide by 108 feet long for adequate playing space for one court. For its size a tennis court accommodates few participants, so that teachers who must think in terms of large groups should avail themselves of the variations to the game, the facilities for which are discussed below.

Paddle Tennis.—Paddle tennis courts may be laid out on hard surface, dirt, or turf. If there is not room for the regulation court, smaller space may be used but all dimensions should be kept proportional.⁵⁵ "The court may be marked with chalk, paint, or tape. The net may be attached to posts, railings, chairs, etc., or stands may be ordered."⁵⁶

Tether Tennis.—A space 20 feet square will take care of a double court for tether tennis allowing sufficient leeway for protection

⁵¹ Julia H. Post and Mabel T. Shirley, *Selected Recreational Sports for Girls and Women*, A. S. Barnes and Company, New York, 1933, p. 120.

⁵² Agnes R. Wayman, *Education Through Physical Education* (3rd edition revised), Lea and Febiger, Philadelphia, 1934, p. 304.

⁵³ National Section on Women's Athletics of American Physical Education Association, *Official Handbook*, No. 115R, Spalding's Athletic Library, American Sports Publishing Company, New York, 1934-1935, p. 39.

⁵⁴ *Sports For Recreation*, copyright, 1936, A. S. Barnes and Company, New York, p. 423.

⁵⁵ United States Paddle Tennis Association, *Official Rules*, reprinted in *Athletics Handbook* No. 115R, 1934-1935, Spalding's Athletic Library, p. 30.

⁵⁶ Women's Athletic Section of American Physical Education Association, *Athletic Handbook*, No. 115R, Spalding Athletic Library, American Sports Publishing Company, New York, 1936-1937, p. 31.

from swinging rackets. A 13 foot pole is set in the center of this plot with 10 feet above ground. These courts can be placed to good advantage in spaces which cannot be used for other activities. Figure 77 (p. 529) shows the relative sizes of regulation and paddle tennis courts and tether tennis circles.

Quoitennis.—Although the official playing space for *quoitennis* is 16 by 30 feet,⁵⁷ the game may be played with much enjoyment in a

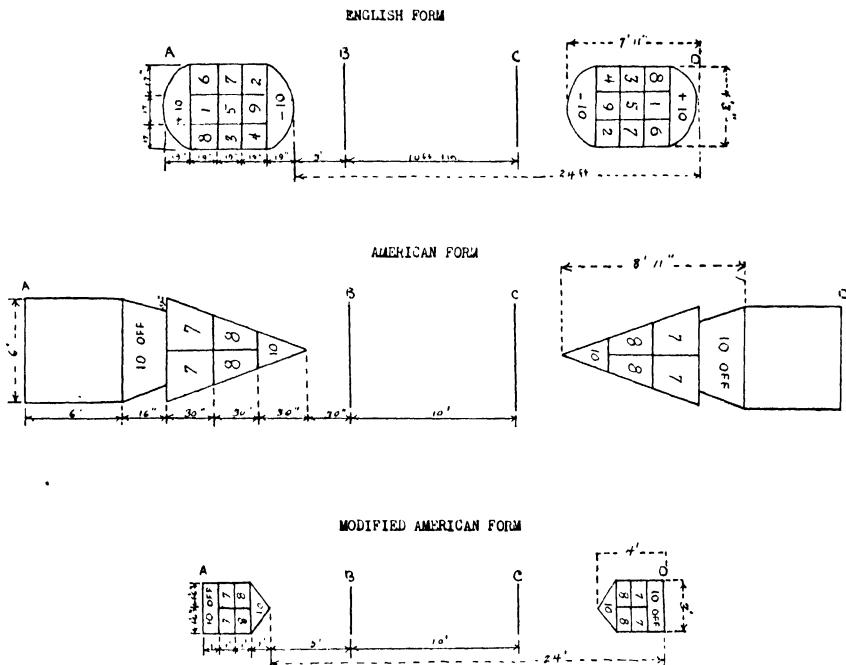


FIG. 25.—Three forms of shuffleboard courts drawn to the same scale. A and D, starting lines; B and C, dead lines. Discs: English form, 4 inches in diameter and 1 1/2 inches thick; American form, 6 1/2 inches in diameter and 1 inch thick; and modified American form, 6 inches in diameter and 1 inch thick.

smaller space and even on one with unequal courts as can be testified by those who have ever played the game on shipboard on all sizes and shapes of courts. Four regulation courts can be laid out on one official volleyball court: either two lengthwise on each half or all four crosswise. Note the comparative sizes of the two courts in Figure 78 (p. 530).

⁵⁷ Women's Athletic Section, *op. cit.*, p. 29 (The trade-mark *Quoitennis* is owned by Parker Brothers, Inc., Salem, Massachusetts.)

Track and Field Facilities.—Schools should not permit jumping events as a part of their physical education program unless they furnish jumping pits, which should be made as follows for the running broad jump, standing broad jump, and hop, step and jump:

Dig up a piece of ground, 6×20 , and fill in about 6 inches with sand, or sand and sawdust mixed in equal parts.

"Take-off" board, 3 feet by 8 inches, should be embedded in earth flush with the ground surface 3 feet from pit, and with length parallel with the narrow edge of the pit.

For hop, step, and jump, another take-off board of same dimensions may be embedded in ground 10 feet from the edge of the pit. However, it may be more satisfactory to simply make scratch mark on ground at that distance from the pit which is suitable to the age of the group. The older and more skilled group will take-off at a greater distance from the pit.⁵⁸

The pit for the running high jump should be constructed according to the following directions:

It would be well to have a separate pit for the running high, permitting two squads to work on jumps at the same time. In this case, suggested dimensions for pit are 6×16 feet with the standards set on the 16-foot side. If standards are not available posts 2 inches square, or 2×4 inches and 14 feet long, sunk 3 feet in ground may be placed on long edge of pit. Each post must be graduated in inches and have small holes bored in it to accommodate pegs used to hold crossbar for jumping. (Holes are to be bored in that side nearest pit.) Pegs must not extend more than 3 inches from posts. The take-off ground (within the 3-foot line) must be level.⁵⁹

The official women's rules set 8 feet as the minimum width of a high jump pit⁶⁰ instead of the 6 feet as suggested above.

Running Track.—The official rules for women⁶¹ recognize the following lengths of dashes:

- 25 yards to 40 yards for elementary school girls.
- 40 yards to 60 yards for junior high school girls.
- 50 yards to 75 yards for senior high school girls.
- 60 yards to 100 yards for college women.

According to the above figures a sixty-yard track should be sufficient for all ages. It should be a strip 12 feet wide marked off in lanes

⁵⁸ J. T. Giles, *op. cit.*, p. 81.

⁵⁹ *Ibid.*

⁶⁰ Women's Athletic Section, *op. cit.*, p. 110.

⁶¹ *Ibid.*, p. 107.

3 to 4 feet wide. "A dirt track is satisfactory if stripped of sod and rolled."⁶²

Volleyball Courts.—Although the regulation dimensions for a volleyball court are 30 by 60 feet, schools wishing to accommodate large numbers at a time place their courts with the length running crosswise of the basketball floor which is usually 45 feet or less in width. (See Figure 78, p. 530, for the actual size of a volleyball court in comparison with a badminton court, which lacks but one foot of measuring in its length the width of a 45-foot basketball court.)

Double Duty Courts.—By careful marking, one playing space can be made to do duty for many sports. A study of the comparative size of quoitennis and volleyball courts (Fig. 78) shows that four quoitennis courts may be laid out on one volleyball court, placing two each lengthwise in each half or placing all four crosswise. The drawing also shows how readily paddle tennis and badminton courts may be superimposed upon each other using the same outside boundary lines; even quoitennis may use the same side lines and suffer no real handicap; it is a simple matter to chalk in the necessary extra lines.⁶³

⁶² Giles, *loc. cit.*

⁶³ In Fig. 79, p. 531, all four courts shown in Fig. 78 are drawn to the same scale and are laid out on an official basketball court for college girls for a varied recreational sports program. The volleyball court is the only one that is reduced in size but even with the official 60-foot length available many prefer a shorter court so that the one represented is a commonly used dimension. In both its width and length it exactly fills one of the three basketball courts so that the basketball lines suffice for its boundary lines. For high school girls with a smaller basketball court, the relative markings for the various courts would remain the same except that paddle tennis would use up the entire width of the basketball court. The quoitennis court should retain the same proportions in relation to the smaller space. When the space is so small that a two-court basketball floor is advisable, the width of the volleyball court must be reduced rather than that of the other three courts: if the reduction is serious, however, one of the four games should be omitted—preferably paddle tennis.

Note the arrangement of the courts for the five games in relation to each other. The two games involving many opportunities for "escaping" balls are placed side by side, the one with the larger ball at the end: badminton shuttlecocks or darts are negligible even if, when "wild," they do strike a person, as they might readily do when the shuffleboard players occasionally come to their scoring diagram to retrieve their discs. The rubber rings of quoitennis are not a menace to the shuffleboard players nor are the latter in the way of the tennis players except when out-of-bounds rings must be retrieved and then the persons involved are facing each other and the moving objects.

REFERENCES

A selected list of references on construction and equipment⁶⁴ has been compiled for the American Physical Education Association, which should be most useful to persons who desire to delve deeply into the subject. The following references the author adds to the McCloy list as suggestion for further study.

Construction of Gymnasiums and Pools

- Committee on Construction, "Trends in Physical Education Facilities and Gymnasium Construction," *Research Quarterly*, May, 1930, pp. 41-50.
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- Browne, A. D., "An Inexpensive Hard Surface Play Court," *American Physical Education Review*, January, 1925, p. 5.
- Martin, George E., *Paving Recreation Areas*, Reprint from Parks and Recreation.
- "Surfacing Playgrounds for Platoon Schools," *The Platoon School*, National Association for the Study of the Platoon in Work—Study—Play School Organization, Washington, D. C., June-July-August, 1929.

Laying Out of Fields

- Neilson, N. P., and Van Hagen, Winifred, *Physical Education for Elementary Schools*, New York: A. S. Barnes and Company, 1930, pp. 51-53.

⁶⁴ C. H. McCloy, "Bibliography of Health and Physical Education," *Research Quarterly* of the A.P.E.A., October, 1932, and December, 1936.

CHAPTER VI
EQUIPMENT AND SUPPLIES

"A good workman is known by his tools."

SINCE THE PHYSICAL education program demand is for big muscle activity involving the instinctive urges of running, jumping, throwing, and climbing, the equipment and supplies demand must be for objects to run after and with, to jump over, to throw and to catch, to climb upon, over, and around, and additional materials as needed to prepare both the facilities and participants for the proper pursuit of these activities. Dr. Allen Ireland says:

To fulfill the purposes of the program is the chief criterion for the selection of equipment. Sales talk and the popularity of certain equipment elsewhere are traps to be avoided. More often than not it is poor economy to purchase what "appears" to be desirable. A safe guide is the query: "Will it contribute to the educative situation in which it will be used?" A thorough analysis of objectives and related activities should be the basis for establishing equipment-needs.

Balls, bats, nets, a piano or phonograph, and so forth are as essential to the educative situation in physical education as laboratory equipment, books, and materials are to academic subjects. They are the tools by which learnings are made possible under capable leadership.¹

The term "equipment" is used in the material that follows to cover those items that are not a part of the building or playground but nevertheless are more or less permanent—once furnished they make no further demands upon the budget for some indefinite period. The term "supplies" is used to designate those items that have no degree of permanence—things that need frequent replacement so that they are somewhat constant items on the annual budget.

¹ Division of Physical and Health Education, State of New Jersey, *Standards In Physical Education*, published by the Commissioner of Education, 1932, pp. 38-39.

QUALITY AND QUANTITY OF EQUIPMENT NEEDED

The variety and amount of equipment needed varies according to the number of students, the type of facilities, the activities offered, and the educational philosophy of the teacher and the administrative superiors.

Relation of Quantity to Educational Procedure.—There can be but little educational content in a baseball class that attempts to get along with only one ball and bat or in a basketball class with only one basketball, yet this procedure is frequently required of physical education teachers because of the failure of administrators to understand that the physical activity program can and should be a part of the educational scheme.

To teach physical education well with the handicap of too little equipment takes much careful planning and ingenuity: if the amount supplied falls below minimum standards much time is wasted. The class procedure for each activity must be outlined before an effective decision can be reached as to the exact quantity of equipment needed.

Quality and Styles.—The quality that is desirable is a problem for which there is no standard solution. For some equipment, cheapness is advisable, while for others it is a luxury in the long run. To make a general statement it seems wise to say that none but high grade archery, hockey, swimming, and playground equipment should be purchased, but that economy might well be practiced on basketball, volleyball, golf, paddle tennis, ping pong, and shuffleboard equipment, while a middle course is best for costumes, tennis, baseball, and badminton equipment.

The inexperienced teacher can procure competent advice on sizes, styles, and quality from experienced teachers and also from the better class of sporting goods dealer who considers the school's welfare above his own sales opportunities.

Suggested Lists.—For the grades the State Department of Education of Massachusetts² suggests the following:

There are two types of less permanent equipment: the inexpensive small equipment which should be purchased in sufficient quantity for each classroom, and the more expensive equipment which may be kept in a central place in the school and checked out and in as needed.

² Commonwealth of Massachusetts, *A Course of Study in Physical Education for Kindergarten and Grades I, II, III*, Bulletin of Department of Education, No. 276, Boston, 1934, p. 10.

The following list makes these distinctions:

<i>Inexpensive Equipment for Each Room</i>	<i>More Expensive Equipment for Each Building</i>
Rubber balls—6"	Soccer balls
Rubber balls—12"	Volleyballs
Beanbags	Basketballs
Long rope	Football
Inexpensive rubber balls:	Playground balls
Volleyball size	Gymnasium mats
Basketball size	Jump standards
Other small apparatus:	Bats
Chinning bar	Rope quoits
Marking flags	Bases for baseball (may be made by individuals)
	Marking equipment
	Other apparatus and equipment

For those departments that seriously attempt to put education into physical education, amounts and varieties are suggested in the material that follows. Under the various headings are given suggested lists of equipment and supplies with special discussion of certain items.³

CLASS EQUIPMENT AND SUPPLIES

Archery.—Manual training classes should be able to make archery tackle. This activity requires a varied list of items as follows:

<i>Equipment</i>	<i>Supplies</i>
Arm guards	Arrows,
Arrow holders	24" average for high school
Backstop, indoor	26"—28" average for college
Bows,	Beeswax
5' average for high school	Finger guards
with 16–20 lbs. pull	Score cards
5' 6" average for college with	Strings, extras, for each size of
18–25 lbs. pull	bow
Bow racks	Target faces, extras, for each size
Point of aim boards	of target
Storage cabinets	
Targets, 24", indoor	
48", outdoor	
Target stands	

The minimum requirement is one target to each eight in the class, four bows and twelve arrows to each target; preferred, one target to each four persons and four bows and twenty-four arrows to each target. There should be a reserve supply of arrows amounting to at least two

³ A directory of equipment for schools, containing sections devoted to athletic and gymnasium equipment, may be procured for twenty-five cents from School Management, Inc., 9 East 40th Street, New York City.

arrows for each student in the largest class. As soon as these reserves are moved to the "current-use" boxes, replacements should be made in the reserve box.

Backstop for Indoor Range.—Canvas, old rugs, felt, burlap quilted together in many layers (a dozen or more), all make good backstops for indoor work.⁴

Targets.—Lacking sufficient budget for regulation targets, excellent substitutes can be made from bales of straw using discarded auto-

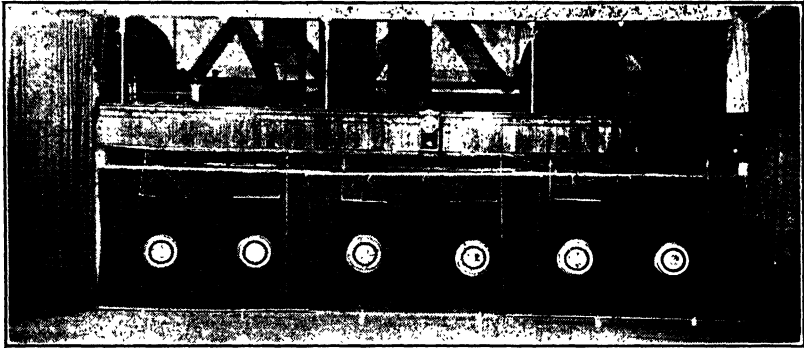


FIG. 26.—Dance studio converted into an indoor archery range at a moment's notice. The targets hang back of the curtains when not in use and the back-stop in three sections rolls up to the balcony rail throwing open the space under the balcony where the grand piano and mirrors are kept. (As used at the University of Nebraska.)

mobile curtains or remnants of canvas for the target faces, which should be painted according to the patterns of Figure 27.

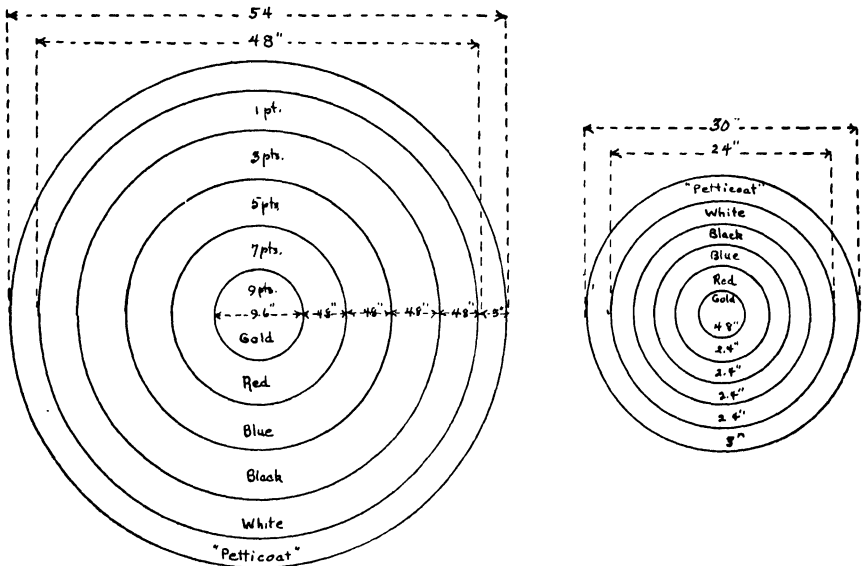
Badminton.—The regulation game of badminton calls for a net, net standards, rackets, presses, shuttlecocks, and a special storage arrangement for the rackets so they will hang vertically: the variations of the game require paddles, balls, or sponges. In the place of the expensive racket which cannot be used for other games, the Baltimore Recreation Centers use a lawn tennis racket: a paddle tennis paddle might well also be used as a substitute. In place of the regulation shuttlecock, which is a piece of cork, rubber-tipped and encircled by feathers, a large sponge trimmed into a spherical shape may serve fairly well if a weight of some sort is worked into the center of it. With this sponge a

⁴ For splendid suggestions see *Archery, Golf, Tennis*, No. 129R, American Sports Publishing Company, New York, Season 1936, edited by Women's Athletic Section of the A.P.E.A.

paddle should be used instead of a racket. An ingenious country school teacher in Nebraska makes shuttlecocks from corncobs and chicken feathers.

For aerial darts there is inexpensive equipment on the market. For still other variations of badminton for which home-made equipment may be supplied, professional literature offers good suggestions.⁵

The minimum class requirement is one court, one shuttlecock, and



OUTDOOR TARGET FACE

INDOOR TARGET FACE

FIG. 27.—Patterns for both indoor and outdoor archery target faces drawn to the same scale.

four rackets or paddles to each eight persons; preferred, the same amount to each four or five persons.

Balls (Inflated).—There are four kinds of inflated balls, which all departments should own: basketballs, soccer balls, volleyballs, and giant or sport balls. Of the large balls, the lighter weight canvas-covered ball is not so hard on wrists as are the heavier rubber balls.

Baseball.—An assortment of 9, 12, and 14-inch balls should be available if a variety of ages is to be accommodated, otherwise all of

⁵ For a description see Gwendolyn Drew, "Paddle Badminton," *Journal of Health and Physical Education*, April, 1935, pp. 42-43, and Ruth Mullaney, "Depression Schoolroom or Mass Badminton," *Journal of Health and Physical Education*, May, 1936, pp. 332-33.

one size is sufficient. (For correct sizes see Table VI, p. 155.) Bases are easily made at home of heavy canvas fifteen inches square and stuffed with peat moss. Bats should be furnished in girls' assorted sizes and models.⁶

If there is no solid wall space that can be used safely for baseball target practice and tests, a wooden target should be made. Basketball goal backboards are excellent size and thickness for this. The target recommended in the baseball rule book is 18 by 36 inches and should be placed 20 inches above the floor.

For a minimum requirement there should be one ball and bat to every four girls but one ball to every two is desirable. There should be one diamond to every twenty girls.

Basketball.—In many high schools and colleges the girls have no balls other than those discarded by the boys, but this is not always a handicap since the boys' standards for balls exceed those of girls and their discards are at times quite satisfactory. Not having to meet inter-scholastic standards, girls may find satisfaction in less expensive balls. If at all possible there should be four to six basket goals for practice with two or four extra baskets installed on cross courts.

The minimum requirement is one ball to every four girls and one court to every twenty-four; preferred, one ball to every three and one court to every fifteen.

Goals.—The four sets of goals that are most commonly used on girls' athletic fields are the following:

- Fieldball, 8 feet high and 8 yards apart
- Hockey, 7 feet high and 4 yards apart
- Soccer, 8 feet high and 6 yards apart
- Speedball, 8 feet high and 6 yards apart

If movable cages are made for hockey goals they can be placed when needed between the uprights of soccer and speedball goals with their 7 feet of height clearing the cross bars by a foot.

Golf.—Golf is rapidly becoming a recognized subject in the colleges and in the more progressive secondary schools. Many colleges and universities have golf practice cages; some have, in addition, clock golf circles and putting greens, while a few maintain their own school links

⁶ Such an assortment of 8 bats of white ash especially made for girls at the suggestion of the Committee of the American Physical Education Association on Girls' Baseball is now available for approximately \$5.00 a set through A. G. Spalding and Bros., makers of athletic goods. Order by name "Spalding Junior—Autograph Bat—Girls' Assortment."

of from three to eighteen holes. The list of equipment and supplies needed to offer golf as a class activity is as follows:

<i>Equipment</i>	<i>Supplies</i>
Clubs: assortment of all styles— one set left-handed	Golf balls: regulation, seconds and repaints
Driving box	Crocheted soft balls
Practice cage	Small rubber balls
Targets, canvas	Old tennis balls
	Tether golf balls
	Cocoa mats
	Pieces of carpeting
	Sand pails for balls

Clubs.—To have the students furnish their own clubs classifies the sport as one for privileged students only. At the start the school should meet the minimum standard in equipment. It might be permissible to ask those students who own clubs to bring them to class to augment the supply until it can be brought up to the proper standard. Clubs are not easily broken and if care is taken to prevent loss the initial cost will serve for a long time.

Equipment Storage.—Special storage space should be provided for clubs so they will lie horizontally with the club head hanging free in space. The school carpenter shop should be able to design a cabinet with compartments for balls, sand buckets, accessories, and clubs.

Practice Cages.—Long cages are unnecessary: length enough for safety to class members need be the only consideration. The individual cages used at many schools are not an absolute necessity. Single compartments that accommodate three players at a time are satisfactory and are less expensive, having but two side partitions instead of four as in a cage with three individual lanes. Constant vigilance must be taken, however, to see that those practicing do not crowd too close together: but this can be regulated by the placement of the cocoa mats. Satisfactory dimensions for practice cages for girls are 15 feet deep, 9 feet wide and 10 feet high. The Ohio Manual suggests that cages be 18 by 12 by 12 feet ⁷ in size and the Committee on Gymnastic and Athletic Field Equipment ⁸ of the American Physical Education Association calls for cages 20 by 9 by 10 feet.

If possible cages should be set up with a leeway of ten feet back of the driving tee. In outdoor cages at a distance of fifteen feet from the

⁷ D. Oberteuffer, *Health and Physical Education Series*, Volume III, Ohio Department of Education, Columbus, 1932, p. 121.

⁸ Carl H. Burkhardt, "Committee Report on Gymnasium and Athletic Field Equipment," *Research Quarterly* of the A.P.E.A., October, 1934, p. 88.

driving target there should be a driving box running the full width of the cage. A trough three feet wide built up a few inches above the ground and filled with clay makes an excellent driving box.

At the University of Nebraska, the women's department has a double golf cage for outdoor practice, using one canvas back drop for both courts. The sides are of wire, double the ordinary length, and the back drop is hung from the center of the two sides, thus permitting two sections of players to practice at the same time, driving into opposite sides of the one backstop. The driving boxes at the opposite ends of the long wire sides are far enough removed from the canvas to eliminate danger from rebounding balls. (Fig. 28.)

Handball.—A tennis ball may be used for handball equipment but a soft solid rubber ball somewhat smaller is better.

Hockey.—Field hockey equipment is expensive in comparison with that of many other games but when given proper care it lasts for a long time so that the initial cost is out of all proportion to that of later upkeep and replacements.

Equipment

Drying board for freshly painted balls
Goals, cages 7 feet high and 4 yards wide
Indoor practice goals
Shinguards
Shoes, goal keepers'
Sticks, assortment from 17 to 23 ounces

Supplies

Balls: cricket for match games, cheaper ones for practice
Paint: special kind to touch up balls after each day's use
Pucks for indoor practice
Stakes for boundary lines

Miscellaneous Equipment and Supplies.—There are many things which are needed for the common use of all sports such as the following:

Equipment

Air gauge for balls
Bean bags
Dry lime marker
Game timer
Guards for eyeglasses, at least 2 pairs
Inflators for balls
Nets
Net posts
Sport balls, miscellaneous sizes from 6" to 24"
Stop watch
Tape line, steel, 50'
Tape line, steel, 100'
Targets, wood, 15" X 24"

Supplies

Arm bands in many colors
Baskets for carrying balls to fields
Friction tape in rolls
Laces, rawhide
Lime, air slaked, bought by 80 lb. sack
Lapboards of press board for class written work
Needles, lacing, with wood handles
Whistle, shrill
Whistle, two tone

Nets and Net Standards.—The different sizes of nets needed for various games are confusing. Some of them might well be used interchangeably but if a department does own the various sizes, each should be plainly marked or tagged in some way with the name of the

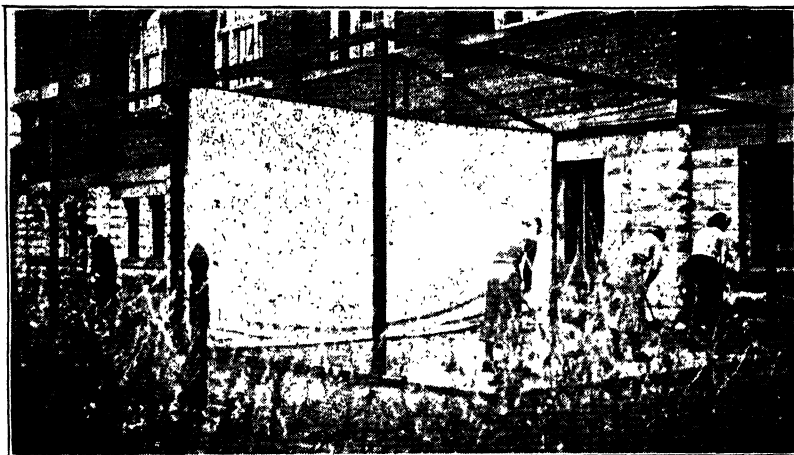


FIG. 28.—Double golf cage as used at the University of Nebraska. Note players on both sides of the canvas.

activity for which it should be used. Large red letters of indelible ink on the top band are conspicuous and helpful; a "V" for volleyball, "B" for badminton, and so on. The nets most commonly used are as follows:

	Width	Length	Height from Floor at Center
Badminton	2 ft. 6 in.	17 to 24 ft.	5 ft.
Paddle tennis	2 ft.	20 ft.	2 ft.
Quoitennis	3 ft.	18 ft.	5 ft.
Tennis	3 ft.	42 ft.	3 ft.
Volleyball	3 ft.	32 ft.	7 ft. 6 in.

In lieu of a net a piece of rope will do fairly well as a substitute. Some of the municipal tennis courts in Lincoln, Nebraska, are equipped with nets of fourteen-gauge wire netting which after two years of hard service have not yet had a break.⁹

Volleyball net standards can serve for other nets if hooks are attached at heights of 2 feet 6 inches, 3 feet 6 inches, and 5 feet 6 inches.

⁹ Information from Mr. Joe Stanton, Director of Recreation in the City Parks. Sixteen-gauge wire tried out on the University courts did not stand up.

The physical director for the Tennessee Coal, Iron and R.R. Company, of Birmingham, Alabama, has devised uprights that can be used for a great variety of activities.¹⁰

Paddle Tennis.—Since the net for paddle tennis is so low (only two feet high) the usual net standards are not necessary. Short posts with metal tips to fit into small holes in the floor and with end guyropes fastened to the rings of apparatus floor plates, which when released are flush with the floor, are sufficient for indoor courts.

Paddles can be made in manual training shops but a regulation paddle should be used as a pattern.

Ping Pong (Table Tennis).—Excellent home-made nets for ping pong tables can be made from the coarse mesh bags in which oranges and grapefruit are sold by the dozen at many grocery stores. Home-made tables can be constructed at a great saving with carpenter horses serving for legs. The wood used for the table top should be of three-, four-, or five-ply veneer.

Ring Tennis (Deck Tennis).—A twenty-four inch piece of three-fourths inch rubber garden hose joined at the ends with regular hose coupling is suggested as a good home-made substitute for the commercial rubber rings.¹¹ But the regulation ring is not expensive,¹² and is so much more comfortable to the hand than any home-made contrivance can possibly be that it is well worth the difference in cost.

Shuffleboard.—Shuffleboard is one more game that lends itself admirably to home-made equipment. A cue should be 5 feet 3 inches long in the handle with an additional 6 inches for the shoe which should be set at an angle of about 30 degrees;¹³ the cues used on many commercial courts, however, have the handle and shoe in a straight line. A hardwood block cut to fit the curved edge of the disc with a hole bored at an angle to take a 5-foot piece of 1-inch fir doweling¹⁴ makes a good cue as does also a mop or broom handle with a metal or wooden piece fastened to one end and shaped to fit the circumference of the disc.

The circular discs may be made of hard maple, oak, or birch; 4 inches in diameter and 1½ inches thick for the English form of

¹⁰ For an explanation of his device see A. S. Hotchkiss, "A Method of Combining Scores of Mass Athletics and Field Day Events," *Journal of Health and Physical Education*, May, 1932, pp. 18-23, 52-57.

¹¹ State of Washington, *Health and Physical Education, A Program for High School Boys and Girls*, State Department of Education, Olympia, 1934, p. 87.

¹² Less than \$2.00 each.

¹³ *The Athletic Handbook*, 1934-1935, p. 38.

¹⁴ State of Washington, *op. cit.*, p. 154.

game, and $6\frac{1}{2}$ inches in diameter and 1 inch thick for the American form. For one set there should be four discs painted one color and four, a second color.

To measure and mark off the scoring diagrams for each day's playing is a tedious task, yet many people object to the permanent markings on the floor or sidewalks. This problem can be solved easily by making a stencil of the diagram out of display board. Whenever a game is to be in progress the stencil can be laid on the floor and with the use of a wide cake of chalk, the diagram can be marked in a few moments, thus saving all need of measurements and ruling of lines.

The minimum in equipment requires one scoring diagram marked off for each court and one court for each eight persons, with two cues and eight discs to a court; preferred, two scoring diagrams for each court, one court for each four persons, with four cues and eight discs to a court.

Swimming.—Instructional work requires a variety of pieces of equipment, while safety considerations and the proper care of the pool call for still others. For the first there is needed diving boards, flutter boards, mirrors, retrieving objects, etc.; for the second, life buoys, rescue poles, a dividing rope, and a life guard chair; for the third, controlled costumes, water testing, heating, sterilizing equipment and supplies, and a vacuum cleaner.

Bathing Suits.—The school should furnish the suits and permit no others to be used. The use of individually owned suits results in the wearing of all grades and kinds of material with some shedding much lint to clog the drains, of all colors and kinds of dye with some colors running in the water, and of all types of styles with a heterogeneous array out of keeping with instructional work. It also results in all degrees of cleanliness, or lack of cleanliness, with a certain amount of pool pollution.

The suit for general class use should be unskirted but a skirted supply should be kept on hand for use in mixed recreational hours. Cotton suits have been in disfavor in the past because they would not hold their shape and woolen suits have been prohibited because of their shedding of lint: now there is a mercerized cotton suit on the market which holds its shape almost as well as does a woolen suit, and research workers have found a treatment for woolen material which renders it practically harmless in its shedding propensities. The woolen suit is preferable to any other for it more readily maintains body temperatures—an important consideration for beginners who are prone to

stand about too much in the water. The suit used should be tested for fastness of color and should be a style requiring no buttons to get out of order.¹⁵

Footbath.—No one should be permitted to enter a swimming pool without first walking through a footbath of antiseptic solution to protect from athlete's foot. The tub should be so placed that it is impossible to enter the pool room without walking through it; it should be so large that it cannot be stepped over easily. The better pools being constructed today have these tubs built into the entry way and supplied with water connections for cleaning purposes. Lacking built-in facilities, there are excellent rubber tubs on the market for this purpose.

In order to keep supplies for this bath constantly available, it would be well to keep two five-gallon bottles on hand, one to be at the pool in service containing the antiseptic solution while the other is being refilled. The solution to be used should be recommended by the school health department.

Flutter or Kick Boards.—The Committee of the American Physical Education Association on Gymnastic Equipment recommends that each pool be supplied with at least six flutter boards, 8 by 48 inches in size.¹⁶ The women students at one university like their boards, which are 18 inches wide, 36 inches long, and 2 inches thick. For buoyancy they are made of white pine and to protect from warping they are treated with a foundation coat of turpentine followed by three coats of paint.

Tennis.—If at all possible the department should furnish tennis balls for class work, using a fresh supply each season, thus insuring the use of live balls. This requires careful checking of balls for they are easily lost and stolen. At the least all balls to be used for tests should be furnished so all will be uniform.

Tennis Rackets.—Tennis rackets for girls and women should weigh from twelve and a half to thirteen and a half ounces: the lighter the weight of the player, the lighter should be the weight of the racket. The handle should be of a size that can be gripped firmly with the thumb easily overlapping the first joint of the middle finger. A handle too large for such a grip and a racket weight too heavy for the player's arm strength can readily be a serious handicap to a beginner. If the school owns rackets, they should be purchased in assorted weights and

¹⁵ Detailed information on bathing suits is contained in Clare Small, "Standards in Physical Education Costumes for Girls and Women," *Research Quarterly* of the A.P.E.A., October, 1934, pp. 70-84.

¹⁶ Carl H. Burkhardt, *op. cit.*, p. 98.

grip sizes for beginners. Advanced players should own their own rackets.

*Tennis Practice Boards.*¹⁷—Teaching tennis to beginners satisfactorily demands equipment other than courts, balls, and rackets. At times it is important to be able to keep a class indoors where it is easy to talk to all together and to hold them under close observation as they learn the fundamentals of the management of the racket and ball. This calls for indoor backstops.

In the Woman's Gymnasium at the University of Nebraska the long walls of the larger gymnasium are lined with stall bars in groups of four stalls each. For a number of years tennis backboards have been in use there, utilizing these stalls as supports for the practice boards, which are wired to them and can be easily removed and stored back of them if at any time it is desirable to use the bars. Two twelve-foot strips of press board, which comes in four-foot widths, make one backstop. This material gives a faster rebound to the balls than does beaver board or other similar materials but a slower one than does a solid wall, therefore making an ideal practice board for beginners. A white line is painted on the board at the height of a tennis net. These boards cannot be used for baseball targets: they do not stand up under a greater weight than that of tennis balls.

Tether Tennis.—A pole extending ten feet above the ground, a ball in a net casing attached to the top of the pole by a seven and one-half foot cord, and tennis rackets or paddles (with paddles preferred) make up the equipment for tether tennis. Old tennis balls fastened in casings made of string or cloth serve well in place of the official ball.

One pole and ball and four paddles may serve eight persons, but one to four is a more desirable arrangement.

Track and Field.—There is little equipment needed for girls for track and field. Batons, hurdles, jumping bars, and standards can all be made at school. An eight pound shot put, a girl's discus, and a rake and spade (for use at the jumping pit) complete the list.

THE DRESSING ROOM

Costumes.—There is a growing tendency for schools to furnish gymnastic and athletic costumes for students. Some schools furnish not only the costume but the accessories as well, such as hose, shoes, and jerseys. This solves a difficult problem not only for required work but

¹⁷ Excellent advice about tennis equipment is contained in Helen Irene Driver, *Tennis for Teachers*, W. B. Saunders Company, Philadelphia, 1936.

also for intramurals, thus removing one of the most serious handicaps to an extensive program. Some colleges demand upon matriculation a physical education costume fee which covers the entire college course with a certain graduated amount refunded if the student withdraws at various periods preceding graduation.

The University of California at Berkeley,¹⁸ the University of Oregon,¹⁹ DePauw University,²⁰ and the Rice Institute,²¹ are three schools having such a fee requirement. Omaha and Philadelphia are but two of the cities whose public schools furnish gymnastic costumes for physical education work: the last named furnishes them free of charge to all high school children and to those in the grades who are unable to afford them.

Central High School of Omaha furnishes for its girls all white, one-piece costumes which are laundered after each wearing. To cut expenses the costumes are not even mangled. Viewed collectively on a class they look surprisingly well in their unpressed condition: an unpressed clean suit is always preferable to one, once ironed, but soiled.

Advantages of School Ownership of Costumes.—School ownership assures uniformity and cleanliness at a saving to the pupils and at no expense to the schools other than a financing of the initial cost, which can soon be repaid out of fees which will cover the full expense of the project. Since there is nothing to lose and much to gain by this system it is difficult to understand why more schools do not adopt it. It assures a fresh costume each time a student takes part in any activity of the department. If all accessories are supplied, such a system removes the need of storage other than temporary lockers for street clothing, since an attendant can hand out the sizes of articles needed as called for and take them in at the end of the activity period. If only costumes are furnished there will need to be basket storage for shoes, hose, and jerseys. Some schools prefer the basket system even though supplying suits: an attendant places a clean costume and towel in each student's basket before class, thus eliminating the need of students lining up at a counter to receive their supplies at the opening of the period.²²

¹⁸ Information procured during a personal visit at the department.

¹⁹ Harry A. Scott, "The Solution of the Locker Room Problem at the University of Oregon," *The American Physical Education Review*, December, 1928, p. 671.

²⁰ Lloyd L. Messersmith, "Administration of a Gymnasium Box Locker Plan," *Journal of Health and Physical Education*, September, 1933, pp. 28-30.

²¹ Harry A. Scott, letter to author, March 29, 1937.

²² *Ibid.*

According to one who has had experience with the school ownership of costumes,²³ the advantages are as follows:

1. Economical—Usually a student buys two outfits during four years due to loss, theft, and damage.²⁴ The fee charged is much less than the cost of costumes.
2. Convenient—No need ever to take costumes home and remember to return them.
3. Efficient—All classes in costume.
4. Hygiene—All costumes are clean.
5. Attractive—All dressed alike.

Quantity and Size Requirements.—The life of a school-owned costume which is laundered after each use is on the average three years.²⁵ The amount of costumes it is necessary to carry for the enrollment in classes and intramurals depends largely upon the laundering arrangements. If they can be sent out and returned within twenty-four hours, a smaller supply need be maintained than if they must be away for two or three days. On daily service, however, the replacement bill is heavier as the fewer suits are worn more frequently.

The manufacturer who supplies the costumes can advise as to the range of sizes necessary for the age group to be outfitted and the proportion of the total amount which should be carried for each size within that range. (Costume specifications are discussed in Chapter XIII.)

Locks.—There are many kinds of locks and many ways of administering a locking system for the protection of students' clothing. Before deciding which system is the best for a particular situation it is necessary to consider just what purpose the locking system should serve, how best it can be used to promote department efficiency, and what limitations of cost must be kept in mind. An adequate system meets the following requirements:

1. It actually protects what it locks up: it is safe from lock pickers and substitute keys.
2. It has a locking device that will work in spite of hard wear and careless use.
3. It involves the least possible work in the office to keep a record of locks and instructions for their use.
4. It permits the department to have ready access to any locker at any time.

²³ Mark Wakefield, "Physical Education Class Equipment," *Journal of Health and Physical Education*, October, 1932, p. 39.

²⁴ This is not so apt to be the experience with girls as with boys.

²⁵ Wakefield, *op. cit.*, p. 38.

The first two requirements call for a lock that is not too cheap; the third for a uniform type of locking device for all; the fourth for a system with a master key or a master chart of combinations with all locks controlled by this master system.

With a system using a key lock, the key should be sturdy enough not to break easily in the lock and it must be one that cannot be readily replaced by a skeleton key. With a system using a padlock the padlock should be such as will not get out of order easily by dropping or throwing it. With a combination lock system, the combination should be one that is easily clicked off, easily remembered, not easily picked up by others, and on a series with such a wide possibility of combinations that there need be no duplications.

The reasons for the uniform requirement are important: a locker that cannot be inspected readily is a protection to one who wishes to use it as a hiding place for stolen articles; frequently it is necessary to search for misplaced articles which, in a rush, may be thrown by the owner into the wrong locker and later locked up without the owner of the locker being aware of their presence; also it is necessary at times to open a locker to recover the property of others which has been borrowed and locked in the borrower's locker instead of being returned to the owner; at times students forget their keys or lose them or forget their combinations, in which emergencies the department must open their lockers for them.

The most satisfactory system is that of a master-keyed combination padlock. Arguments in its favor are:

1. The padlocks can be removed to other lockers in subsequent terms, thus changing the locking device on all lockers.
2. The padlocks can be transferred from a permanent to a temporary storage place while the student is in class, thus serving a double duty.
3. With a combination lock the student has no key to lose and the department has no keys to bother with, substituting for key cases a combination master chart.
4. With a master-keyed combination lock, the attendant can open all locks with one key, thus not needing to use the combination of each lock when necessary to open it.

It is possible to procure at a reasonable price such master-keyed combination padlocks that are built to stand the ordinary abuse given them by students.

Shower Curtains.—Those showers that are to be used for privacy must have curtains unless the students use shower robes which can be used as curtains during the bath. This is satisfactory for it does away with the need of permanent curtains which collect dirt and in certain unfavorable situations readily mildew; also absence of a permanent curtain serves as a ready signal that the shower is not in use. For durability curtains should be made of canvas or, as now furnished in a number of the new buildings, of rubberized cloth or water repellent pique both of which can be supplied in attractive colors. Sanforized eight-ounce white duck makes excellent permanent curtains but shower robes which are to be used as temporary curtains need not be so heavy. The standard size is three by six feet ready to hang with a two-inch hem at the top with metal eyelets for hanging and a three-inch hem at the bottom.

Soap Containers.—It is a mistake to place glass soap containers in a shower room for no matter how thick the glass it does get broken. The ideal soap dispenser is the pipe system of non-rust metal pipes with an individual outlet at each shower and lavatory.

A good grade of soap should be used for the health of the skin of the bathers and for the protection of the pipe system as well; cheap soaps readily clog the pipes.

Towels.—It is important that towels and laundry service be supplied by the school so that each student may have a clean towel at the close of each physical activity hour. The administrative problems of towel and laundry service are discussed in a later chapter.

For size of towels, 18 by 30 inches and 17 by 34 inches are good standard sizes. The number needed is one-third to one-half more than the full enrollment each week. Twice the enrollment is preferable to take care of intramurals and all other extras beyond class work but by careful management of laundry schedules, the lower figures should be sufficient. For girls, the life of a towel should be four years: they are not as hard on towels as are boys so that if their supply can be kept separate from that of the boys replacement bills will be reduced.

Some schools are experimenting with paper towels as a substitute for bath towels but as yet they have not proved entirely satisfactory. Most schools do use them however as a substitute for hand towels. The old style roller hand towel should not be permitted in any school building although quite approved is the lock-roller hand towel machine which upon the pressing of a button feeds out a fresh section of toweling.

THE EXAMINING ROOM

The amount and kind of equipment needed for the examining room depends altogether upon the type of physical examinations given by the school. The minimum requirement includes an eye chart, a loud-ticking watch, scales, and a height-taking device. A list of desirable equipment and supplies is as follows:

<i>Equipment</i>	<i>Supplies</i>
Audiometer	Accessories for posture machine
Dynamometer	Examination blanks
Manometer	Examination robes
Posture machine	Eye chart
Scales	Growth charts
Screens	Measuring tape
Sliding wood calipers	Mouthpieces for spirometer
Spirometer	Paper napkins
Stadiometer	Score cards
Subcutaneous tissue calipers	Thermometer
Wall charts	Tongue depressors
Breathing capacity standards	
Height-weight-age-build standards	
Weight variation percentage chart	

Audiometer.—Since so many children have defective hearing it is important that the hearing of all children be tested. If the school does not have a health service the physical education department is the logical department to sponsor this testing. If an audiometer cannot be afforded a loud-ticking watch should be furnished as a substitute.

Dynamometer.—Those departments that attempt to give tests such as the Rogers Physical Fitness test need a back and leg dynamometer and a hand grip device. These are expensive but money spent on a wise testing program for all children is better spent than on expensive varsity outfits for the star athletes.

Equipment for the Study of Nutritional Status.—A pair of sliding wooden calipers, a measuring tape, preferably steel with special Gulick handles with spring, and a pair of subcutaneous tissue calipers are necessary pieces of equipment for examinations designed to study the nutritional status of students.²⁶

²⁶ These pieces of equipment may be procured from the American Public Health Association, 50 West 50th Street, New York City: wooden calipers for \$2.10, special steel tapes for \$1.90 and subcutaneous tissue calipers for \$8.00. ACH score cards for this work may also be obtained there.

Examining Robes.—In situations where examining robes are necessary they can be made inexpensively and at odd moments by the dressing-room attendant or by the sewing classes as a class project. The most common type is a length of goods twice the measurement from shoulder to knee with a hole for the head cut in the center and slit a ways down the center back. The neck line and back slit are bound and tie strings are attached at the top of the slit. White cotton flannel, light weight, is the most commonly used material. For quantity there should be as many robes as are necessary to supply each examinee with a clean one, using special rush laundry service to cut the needed supply to the minimum.

Posture Machines.—A progressive department offers corrective work and this requires some type of posture machine. If the school cannot afford commercial equipment, the physics department might be drafted to contrive apparatus for this work. At the minimum equipment level for posture work is the broomstick or window stick used in the Bancroft test. Next to that is the schematograph and its many variations which are machines from which body outlines are drawn on tracing paper. A slow or unskillful operator and a swaying subject give inaccurate tracings. Because of these difficulties the schematograph which was in great vogue in the 1920's has been almost completely displaced by the more accurate although more expensive silhouettegraph and camera.

The silhouettegraph was developed by Mr. Norman W. Fradd of Harvard University and Mr. M. C. Reed of the Eastman Kodak Company.²⁷ It uses a sensitized bromide paper instead of a film or plate and reproduces the exact outlines of the body showing white on a black background. Necessary supplies are as follows:

2 500-watt light bulbs back of screen	Stand for subject to stand on
Bromide paper	Frame with architect's tracing linen 3 by 7 feet
Developer (50 cents for 200 pictures)	Lights in front of screen to illuminate subject being examined
Developing trays	Camera placed 12 feet from subject
Fixing bath	

²⁷ Its construction and operation are fully described in C. H. Hubbard, "The Silhouettegraph—Its Contribution to the Study of Posture and Body Mechanics," *Journal of Health and Physical Education*, March, 1934, pp. 49-66, and "Advantages of a New Shadow-Silhouettegraph Over the Original," *Supplement to the Research Quarterly of the A.P.E.A.*, March, 1935, p. 50.

The silhouettegraph produces a permanent record which costs from one to two cents for four exposures.²⁸ There are many varieties of the original machine, costing from a few dollars for home-made equipment, adapted for use with school cameras and lens from physics laboratories, to one hundred dollars and over for the best of commercial products.²⁹

The Department of Hygiene of Wellesley College uses a camera and takes photographs on photostat paper. They figure the cost of all necessary equipment as between \$128 and \$156: for running expenses of supplies, 1 1/3 cents per picture.³⁰

Scales.—Girls are always interested in their weight, and scales should be available to them in the dressing room. The complicated expensive type demanded for accurate research work is not necessary for the daily use of students. The commercial slot-machine scales have proved popular in some dressing rooms. The penny slot is sealed to make its use free of charge. There are no adjusting weights and no calculations to be made by untrained students; the pointer quickly whirls to a number on the dial to indicate the weight. Inspected regularly, adjusted as necessary on inspection, and placed at a convenient spot for student use, it offers a uniform and quick standard for checking weight losses and gains. Good used-machines of this type are frequently available at greatly reduced prices.

Screens.—Screens should be furnished to close off certain portions of examining rooms when large groups are being examined at a given time. Large partitions of beaver board or similar materials set in wooden frames on standards are preferable to folding screens.³¹ They make at the same time excellent display boards for posters. They can be made in the school shop.

Spirometer.—The wet spirometer is the preferred type. Wooden mouth pieces which cost but two dollars for five hundred are less bother than the glass ones which must be sterilized after each use.

²⁸ Hubbard, *op. cit.*

²⁹ Home-made apparatus is described by Charles F. Foster in "Posture Expresses Personality," *Journal of Health and Physical Education*, January, 1931, p. 42, and in University of the State of New York, *Physical Education Syllabus—Book III—Secondary Schools—Girls*, Bulletin No. 1045, June 1, 1934, pp. 194-95.

³⁰ For full description see *Posture Photography and Objective Grading*, mimeographed pamphlet to be procured from Department of Hygiene of Wellesley College based on study of posture grading by C. G. MacEwan for Master's Thesis, 1930. Also see Charlotte G. MacEwan and Eugene C. Howe, "An Objective Method of Grading Posture," *Research Quarterly* of the A.P.E.A., October, 1932, pp. 144-57.

³¹ A size 72 inches high and 90 to 95 inches long is a good all-round utility size for these screens.

Stadiometer.—The height-measuring apparatus (the stadiometer) consists of a platform, one and a half feet square, upon which the subject stands; from the platform a vertical rod marked off in inches and sixteenths of inches; and a sliding horizontal bar, nine inches long, attached to the vertical rod which is to be brought to rest on the top of the subject's head, indicating the height attained by the reading of the measure at the junction of the two rods. If a school cannot afford the regulation apparatus a wall space might be marked off in the measures of a yard stick from the floor to a point extending well above the height of the tallest subject to be measured. On the floor at the base of this measured space there should be indicated foot prints so placed that the subject standing in them has her back to the wall, feet close together, and is far enough out from the wall to be able to stand naturally yet with shoulders touching the wall. Accompanying this makeshift stadiometer there should be two flat thin pieces of wood at least nine inches long—lath would be excellent—fastened together to form right angles: one arm of this right-angled piece to be placed flat against the wall as a guide, with the other arm extending out from the wall to rest upon the subject's head: a chalk box may serve well for this horizontal arm.

Wall Charts.—In so far as such charts are available, there should be hung in the examining room a chart of all standards used in the examining work, such as the following:

Breathing Capacity Standards.—Normative tables for breathing capacity in relation to height, weight, and age have been formulated in the Iowa Child Welfare Research Station.³² They cover a range in age from twelve to eighteen years.

Eye Chart.—For tests of vision, such as any school room teacher should be able to give, the Snellen wall chart is advised.³³

Height-Weight-Age Standards.—The Woodbury Table covering height, weight, age from birth to six years of age may be procured in a wall card seven by nine and one half inches in size: the Baldwin-Wood Tables covering height, weight, age, and build for both boys and girls are printed on small cards four by six inches.³⁴

³² Helen Garside Kelly, *A Study of Individual Differences in Breathing Capacity in Relation to Some Physical Characteristics*, University of Iowa Studies in Child Welfare, Vol. VII, No. 5, Iowa City, 1933.

³³ This chart and the directions for its use may be procured from any medical supply firm.

³⁴ Procure from the American Public Health Association, 50 West 50th Street, New York City: Woodbury Table at ten cents each, the Baldwin-Wood Table at five cents each or one hundred for \$3.50.

Weight-Variation Percentage Chart.—Miss Leonore Alway, Assistant Professor of Physical Education at the University of Nebraska, has worked out a table of weight-variation percentages³⁵ which unfortunately is not available except in its original published form. For use as a wall chart (which is highly desirable for immediate recording at the time of examinations) an enlarged copy should be made from the magazine page: the school office should be able to assist with this copy work. Other percentage charts are discussed in Chapter VIII.

THE GYMNASIUM

Apparatus.—In bygone days gymnasium walls were lined with racks for dumbbells, and with Indian clubs, bar stalls, booms, pulley weights, and horizontal ladders: from the ceilings, hung ropes, flying rings, bars, and rope ladders. Today's new gymnasiums are devoid of such pieces of apparatus; in their place are cabinets for sports equipment and practice boards for skills fundamentals. Very little apparatus is needed for girls even for self-testing activities. The National Achievement Standards call for nothing beyond sports equipment other than a balance beam, or a twelve-foot length of two by four board as a substitute, a mat, and some bean bags. A piano is an important piece of furniture for a gymnasium. Also a music box and a supply of records, carefully selected, are highly desirable.

Equipment Cabinets.—Sports equipment should be readily accessible to the students for odd free moments as well as for class time. For such accessibility, cabinets in the gymnasium itself are preferable to store rooms in the office and dressing room. There are excellent steel storage cabinets on the market with a variety of inside arrangements to accommodate all types of equipment.³⁶

Floor Marking Supplies.—For temporary floor markings the use of textile chalk³⁷ is advised. It makes a mark which clings well to the floor for a day or two and when it is desired to remove it, it comes off readily by scrubbing or by the use of an oiled mop. These crayons, one inch in diameter, make a wide mark in one sweep. Ordinary chalk, moistened as used, also gives good service.

For markings that are desired to be more permanent than those

³⁵ Leonore K. Alway, "Weight-Variation Percentage Chart," *Research Quarterly* of the A.P.E.A., March, 1934, pp. 110-11.

³⁶ For further information see D. V. Trapp, "Solving Gymnasium Storage Problems," *Journal of Health and Physical Education*, September, 1930, pp. 43-50.

³⁷ This chalk may be procured for \$1.80 per gross.

made by crayons show-card paint is an excellent material to use.³⁸ It will cling to the floor for two or three weeks: it does not scuff off easily nor does the use of the floor mop efface it: nothing but actual scrubbing will remove it readily. To avoid the need of constant re-tracing of lines to be used in a series of games or for other activities for which marks are desired which will last a number of weeks, the use of show-card paint is preferable to textile chalk.

Mats.—A jury of experts agrees that mats are very important items of indoor equipment.³⁹ For girls there should be no large mats which are too heavy and clumsy for them to handle for themselves. The following sizes are recommended: for tumbling, some 4 by 6 feet with a few 5 by 7 feet; for individual gymnastics, 2 by 6 feet.⁴⁰

There have recently come on the market sponge-rubber mats which are more comfortable in use than the old style mat and have the additional advantage of being washable and lighter to handle.⁴¹

Mat Covers.—Too frequently are unclean mats found in gymnasiums—mats that are unsightly, unsanitary, and foul smelling. Mats should be kept clean not only for esthetic reasons but to reduce skin infections. This is difficult to do unless they are covered with material that is washable. For all mats that are not washable there should be supplied removable washable covers, which should be made of heavy material that will stand hard wear. In size they should be enough larger than the mats so that they can be slipped off easily.

Mat Storage.—For the proper care of mats there must be supplied trucks, racks or wall hooks. Trucks eliminate the necessity of carrying or dragging the mats about. They also make it possible to use them

³⁸ It can be procured in all colors in pint and quart jars at 66 cents to \$1.11 a pint or \$1.20 to \$1.80 a quart depending upon the quantity in a single purchase. It keeps indefinitely: if it dries out the addition of water corrects it. One pint will mark four volleyball courts. Still cheaper than the paint is the powder tempera which comes in all colors at 45 to 75 cents in 16 oz. cans (one pint) depending upon the quantity purchased. A mixture of one part of powder to one part of water makes the same mark as the paint but at one third the expense: a mixture of two parts of powder to three parts of water makes a satisfactory mark for most purposes while one part to two parts of water makes a mark that is sufficient when heavy lines are not essential. This last mixture furnishes three pints of paint from a 16 oz. can of powder and this will mark the equivalent of twelve volleyball courts at a cost of six cents a court; even less if powder is purchased in large quantities.

³⁹ John M. Harmon, "Methods of Procedure in the City Comprehensive School Health and Physical Education Surveys," *Supplement to the Research Quarterly* of the A.P.E.A., March, 1935, p. 61.

⁴⁰ Sarah R. Davis, "Selection and Storage of Gymnasium Mats," *Journal of Health and Physical Education*, November, 1934, p. 26.

⁴¹ Six such mats in size 2 feet 6 inches wide by 6 feet long by 2 inches thick—an excellent size for individual gymnastics—recently cost ninety dollars.

readily in various parts of the building and to get them out of the way easily when not in use.

Home-made racks may be very satisfactory.⁴² If it is not possible to have a truck or a rack for mats, there should be hooks on the walls so that the mats can be hung and thus be off the floor when not in use.

THE INDIVIDUAL GYMNASTICS OR CORRECTIVE ROOM

The students assigned to individual work are those who are either physically incapacitated for the regular work of the department or in need of corrective work. More than the average do they need a cheerful class room. Gay colors should be used in some way: wall posters, window curtains, mat covers, and bean bag covers furnish opportunities for decoration. Stall bar benches which are usually far from ornamental can contribute a colorful note if covered in bright colors.⁴³ Apple-green, Chinese-red, turquoise-blue, and orange-colored benches used with window curtains made of apple-green theatrical gauze and an old victrola table painted in apple green have made, at small total expense, an attractive room out of what was formerly a drab enclosure at one school.

Bicycle Board.—A bicycle board calls for special protective wall paneling upon which pupils can slide their heels up and down as they do the inverted bicycle exercise which is popular in corrective classes. This paneling is necessary to protect the wall and also the heels of the pupils. It should be made of ceiling wainscoting attached to the wall to a four-foot height. It costs approximately fifty cents a running foot to install.

Posture Boards.—One-inch white pine cut into blocks $9\frac{1}{2}$ inches long and $6\frac{1}{2}$ inches wide makes excellent posture boards. They cost about seven cents a square foot.

Stationary Bicycle.—A stationary bicycle can be made from an old bicycle with its front wheel removed. The front frame work should be anchored to the floor and the rear wheel encased in a contrivance fastened to the floor which will hold the wheel in place but when pressure is applied to the pedals will allow it to spin on a roller on the floor at the rear. The school "handy man" will find this an interesting assignment.

Desirable Equipment.—A list of desirable equipment for the individual room is as follows:

⁴² For full description of a home-made movable rack see Sarah R. Davis, *op. cit.*

⁴³ It is a simple task to cover them. Imitation leather comes in all colors and is 50 inches wide: a sixteen inch piece at \$1.50 will cover two benches.

- | | |
|-------------------------------------|--------------------------|
| 1. Balance beams | 13. Mat racks |
| 2. Bean bags | 14. Medicine balls |
| 3. Bicycle board | 15. Mirrors |
| 4. Bicycle, stationary | 16. Plinths |
| 5. Clinic robes | 17. Posture boards |
| 6. Dumbbells, $\frac{3}{4}$ lb. | 18. Stall bars |
| 7. Equipment cabinet | 19. Stall bar benches |
| 8. File box | 20. Victrola |
| 9. Indian clubs, $\frac{3}{4}$ lb. | 21. Victrola records |
| 10. Marbles, assorted for foot work | 22. Victrola record case |
| 11. Mats | 23. Wands, steel |
| 12. Mat covers | 24. Wands, maple |

MISCELLANEOUS EQUIPMENT AND SUPPLIES

Bulletin Boards.—Satisfactory yet inexpensive bulletin boards can be made of one-half inch mesonite framed. As it becomes worn out from the use of thumb tacks, it can be replaced in the frame. Cork linoleum which is more expensive is also good for bulletin boards and more durable. This material must be glued to a wood back. A board three feet square requires a three-inch wood frame for a balanced appearance. For maximum efficiency a bulletin board should have at its base a trough or box for thumb tacks and penny half-pencils. A pencil secured to the frame on a long chain is a good addition to the equipment.

A movable blackboard on standards is desirable for chalk talks. One or two bulletin boards also on standards add to the efficiency of department work.

Dance Studio Equipment.—A department that carries on serious work in rhythms and the dance should have one exercise floor set aside for a dance studio. It should be equipped in keeping with the traditions of the studios of the other fine arts. Many schools drape their dance studio walls with curtains which, when of soft materials and neutral colors, furnish an excellent background for dance costumes and dance designs and create an artistic atmosphere. Outing flannel offers an inexpensive drapery which hangs in graceful folds. Neutral tans furnish the best background for other colors.

Desirable equipment and supplies are as follows:

- | | |
|------------------------------|--|
| Bulletin board, movable | Piano bench |
| Chinese gong | Piano cover |
| Costume cabinet | Piano platform frame on rollers for
grand piano |
| Cymbal | Rack for percussion instruments |
| Drum, mallet, and sticks | Spotlight and cord |
| Light gellatins and frames | Tom-tom and stick |
| Mirror, movable | Triangle and beater |
| Music cabinet and music | Victrola, records, and record case |
| Piano, grand piano preferred | |

Janitorial Requirements.—The proper care of physical education facilities calls for special equipment and supplies such as the floor cleaning apparatus and dust removers which are more effective than is absolutely necessary elsewhere, antiseptic solutions for waging war on the ever present danger of athlete's foot, and cleaners for sports equipment of all kinds. Repair kits and a work bench are necessary for work on sports equipment.

Matron's Uniforms.—It is money well spent to furnish wash uniforms for the dressing-room matron. Inexpensive ones of medium weight material, cut on tailored lines, can be picked up at sales for little more than the cost of the cloth. This assures the neat and attractive appearance of the matron. The budget should cover the expense of the laundry of these uniforms and a sufficient supply should be kept on hand so there is no need for her to be untidy.

Music and Music-Box Records.—An educational institution should not countenance the use of poor music in class work. All sheet music and records purchased by the school should be of music of merit. There should be a special storage place for records so they can be properly cared for: they should not be permitted to be out of their cabinet except when in actual use.⁴⁴

Playground Equipment.—If small children are to be provided for on playing fields some such equipment as a climbing tree, graduated horizontal bars, a medium sized junglegym, slides, see-saws, swinging rings, and swings should be installed. For the older children all commonly-used sports equipment is needed.

Pinneys.—Although not a regulation part of sports equipment, pinneys add materially to the pleasure of team games. They are short apron-like pieces of cloth used to designate teams.⁴⁵ There should be for each two teams fifteen in one color and fifteen in another, the extras to cover misplacements which happen easily when a girl, dashing in from the field hastily, pulls the pinney off with her sweater and inadvertently puts it in her locker where it is lost until found at her next class period. The colors chosen should be colors not too apt to show up in sports wraps. Green and purple are satisfactory as a rule. Cambric is a good and an inexpensive material which holds its dressing fairly well.

⁴⁴ For educational records consult the catalogs of various music-box companies.

⁴⁵ They consist of two body-width straight pieces of the goods extending from shoulder to hip with bands connecting them over the shoulders and under the arms to tie on one side at the waist.

Rest Room Equipment.—Cots, a chair or bench by each cot, a screen or two, and attractive window curtains are the requirements for a rest room. The number of cots recommended is one to each ten girls or fifty boys taking physical education at any one period.⁴⁶ Each cot should be supplied with a cot cover, a blanket roll at the foot of the cot, and a pillow covered with a washable slip. To this slip should be added a fresh bath towel or paper towel each time the pillow is used if the pillow-slip itself may not be changed after each use.

The blankets should be woolen: the regulation army and navy blankets are excellent and give a neat appearance to the room if all are alike. These blankets also make excellent cot covers since they are easily laundered. For protection, cot mattresses should be encased in sheeting of unbleached muslin or of some other such inexpensive material: it is much cheaper to clean mattress covers than mattresses. There is no excuse for the dirty mattresses seen in many rest rooms.

THE OFFICE

In the office, the instructor has an opportunity as nowhere else to express to her students and co-workers her personality. This room should be attractive yet business like. If the department employs a secretary she should maintain a general office apart from the instructors' private offices: this office should be absolutely businesslike and "tailored" in appearance. It should have a counter to separate the secretary from students and others who call at the office. Under the counter should be shelves and drawers for office supplies. This office should be equipped and supplied as any other office. Special features for physical education work are mentioned below.

Books and Magazines.—Every physical education department should have in its office as a minimum allotment twenty to thirty books and pamphlets on physical education and athletics, covering especially the promotion and management of the activities offered in its own program. These should be augmented by a subscription to the official magazine of the profession.⁴⁷

Filing Cases.—The use of standard sectional files has the advantage of having all parts interchangeable. An important section for a physical education department is one made up of four shallow drawers

⁴⁶ D. Oberteuffer, *op. cit.*, p. 112.

⁴⁷ *The Journal of Health and Physical Education*, published by Elmer D. Mitchell, 311 Maynard Street, Ann Arbor, Michigan—subscription price \$2.00 per year.

such as are made for draftsmen. These drawers will hold, full length, posters and cardboard sheets as large as twenty-three by thirty inches.

First Aid Cabinet.—No department of physical education should attempt to function without a first aid kit which should contain the following as a minimum list of supplies:

Absorbent cotton	Ointment for burns
Aromatic spirits of ammonia	Scissors
Bandaging in various widths	Sterile gauze in various sizes
Heat lamp for sprains	Surgeon's plaster in sheets to cut in size desired
Hot water bottle	Thermometer, clinical
Individual adhesive and gauze band- ages	Tincture of iodine or substitute ⁴⁸
	Tongue depressors

Posters.—A large supply of posters should be on hand at all times. Students can make them as class projects using magazine cut-outs if artists and artists supplies are not available. There is a chance for much originality and resourcefulness in poster displays which in themselves are excellent motivation material. One poster campaign each year will yield a good supply for constant use.

SUGGESTIONS FOR MAKING EQUIPMENT

To save expense many schools have to plan some way to make the greater part of their own equipment. A number of suggestions have been given above and additional helpful suggestions are contained in the following:

From a nearby shop or junk pile, iron stobs or pins and old horse-shoes can be collected. Children like to do this. . . . Bottles can also be collected. Mothers will gladly make a bag and any child can fill it with beans or corn. Trees will be donated by most any parent of a community for goal posts, see-saw supports, horizontal bars, and supports; chicken wire will be given by the farmers so that it can be used for volleyball nets. Hoes, rakes, and other tools can be brought from homes by the children. Bats and balls can be made at school. A bat trimmed from a young sapling is a very good one; sock ravel and twine make good balls; old sacks filled with sand make good bases. After these things are made this will be just about all that children need outside for play.

Tables can be made from scrap lumber for some of the inside games; the desk can also be used. Puzzles, cut pictures, stories, blocks,

⁴⁸ Iodine from which alcohol has evaporated may cause severe burns, therefore it should not be used unless recently purchased and kept in an air-tight container. If there is not enough first aid work to demand frequent fresh supplies of iodine, some other germicide should be used. Abbott's Tincture of Metaphen and Lilly's Tincture of Merthiolate are both good substitutes for either school or home first aid cabinets.

spools, victrola and records, colored crayons, scissors, marbles, dominoes, string, and corncobs will all be of little expense and be very helpful in taking care of recess periods on rainy days or days too cold to be outside on the playground.⁴⁹

Local carpenters or the school shops can make much of the apparatus and equipment. The National Recreation Association publishes inexpensive pamphlets that are full of helpful suggestions for such work.⁵⁰

⁴⁹ Jewel Nolen, "Organized Recess Period for Rural Schools," *Journal of Health and Physical Education*, April, 1933, pp. 59-60.

⁵⁰ Write them for their latest material and price lists at 315 Fourth Avenue, New York City.

CHAPTER VII

CARE OF THE PHYSICAL EDUCATION PLANT

"The every day cares and duties, which men call drudgery, are the weights and counterpoises of the clock of time, giving its pendulum a true vibration, . . . and when they cease to hang upon the wheels, the pendulum no longer swings, the hands no longer move, and the clock stands still."

—LONGFELLOW

IN MANY SCHOOLS the physical education part of the plant is so unsanitary, so poorly lighted and ventilated, and so inadequately equipped that the educational work carried on there is negligible. In others, although fairly well equipped and fairly well cared for, there is a paucity of educational opportunity compared to that which could exist if more thought were given to the maintenance problems. Many educators fail to see the character education values for school children that arise from their observation of and participation in proper school house-keeping.

To teach children to respect the common property of all, to participate in its care, and to become habituated to sanitary, orderly surroundings is a valuable part of education—a part in which janitors and dressing room matrons as well as instructors are the teachers. The following material is but an outline of physical education housekeeping.

THE PHYSICAL DIRECTOR'S RESPONSIBILITY

All parts of the plant should be swept, scrubbed, and dusted as frequently as is necessary to keep them meticulously clean. In addition to this the care of equipment and supplies and inspections in behalf of safety measures play an important part in the care of physical education facilities. Such matters can not be mere janitorial obligations: they are the concern of the entire teaching staff. If equipment and supplies to work with must be furnished, places must be provided in which everything can be kept when not in use and students must be trained to put things away at the end of all class and play periods. In addition,

certain divisions of responsibility should be allotted to each member of the department with all assignments and instructions in writing and so complete that there can be no possibility of failure on the part of any one to understand his or her particular assignment.

Although the purely janitorial tasks should be performed in accordance with the general policies of the school concerning all janitorial work, the physical education director should be free to inspect that part covering her own facilities and should not hesitate to report to the proper authorities whenever the work is not up to standard.

Too frequently the gymnasium and locker rooms are the dirtiest places in a school building. There is no excuse for this. No school need tolerate a physical education teacher who permits such conditions to exist. If there is not sufficient janitorial service to keep all parts of the facilities scrupulously clean or if the janitor neglects his work the teacher should take up the matter with the superior officers as frequently as is necessary to procure proper results. If this is not effective there is always a last resort—one which the author did not hesitate to use on occasions as a young teacher—that of doing for herself the janitorial work which the student janitor was paid to do but about which he could not be bothered, engrossed as he otherwise was in the task of being the campus football hero. By such procedure dignity suffers but self-respect is maintained by refusing to work in a dirty gymnasium or to permit students to report to dirty dressing rooms.

Aside from checking on the routine janitorial work, all other details of the care of the plant which are specifically outgrowths of the physical education program should be the concern of the physical director.

THE JANITORIAL STAFF

It takes constant picking up, sweeping, dusting, and occasional scrubbing to keep a gymnasium and its auxiliary rooms clean and in order. A lazy janitor and matron can never do the task justice.

In most instances the janitorial work of a school is done by men and supervised by men and as they are not free to enter the girls' quarters at all times, these rooms are not adequately inspected. Also, as a rule, a man is not so meticulous as is a woman in regard to the minor details of cleaning. For these reasons women should do the cleaning in the girls' dressing rooms and women teachers' offices, under the direct supervision of the woman physical education teacher.

Athlete Janitors.—The character training received by the athlete star who accepts payment for which he gives no return is a serious charge against the educational organization that permits such a practice. Wherever there exists the custom of "employing" athletes as janitors in gymnasiums it should be frowned upon for, in the main, the employment is a camouflage: there is usually no real intention upon the part of the athletic department to have the athlete do the work nor is there intention upon the part of the athlete to do the work. Therefore the work, assigned to no one else, is not done, hence the dirty physical education departments found in many colleges all over the country. Especially do women's departments suffer if their care depends upon such an arrangement. Women teachers should do everything in their power to prevent this kind of janitorial work.

Student Help.—If there cannot be janitorial service sufficient to keep all parts of the plant scrupulously clean, the teacher should organize her students into cleaning squads and have them do a part of the work under her supervision. This plan has certain merit educationally: if the students have to help keep the rooms clean and to care for equipment, they will take better care not to leave them dirty or out of order. If student help is employed, a man student should do the heavy cleaning and take care of the gymnasium and the fields and perhaps the weekly scrubbing in dressing rooms but a woman student should be given the task of the daily cleaning of the girls' dressing rooms, examining room, and offices.

CARE OF THE PHYSICAL EDUCATION ROOMS

Sweeping.—The floors of all exercise rooms used daily should be swept or gone over thoroughly with a dust mop each day. The floors of all rooms not used regularly should be given the same treatment after each day they are used. Toilet and shower room floors should be flushed with hose daily and once a week scrubbed with warm water and cleansing powder.

Dusting.—All furniture and window sills—not some but *all*—should be dusted daily (twice daily during dust-blowing seasons) and all woodwork should be wiped at least once a week: too many cleaning people neglect furniture and woodwork completely. Aside from the daily dusting, all furniture should be wiped once a week with a cloth which has been treated with some dusting preparation and is almost dry. Too much oil on the cloth leaves a scum on furniture which is not only unsightly but is damaging to clothing.

Furniture.—Aside from daily dusting and weekly wiping, care should be taken at all times not to mar furniture in any way. Squares of felt should be kept at hand to place under flower vases so moisture will not stain or damage the finish.

Rest Rooms.—An attendant or student leader should be appointed to put the rest room in order at the opening of each half session of the day. The blankets should be rolled or folded and placed at the foot of the cots; the cot covers and pillows should be smoothed out; the used towels on the pillows should be collected and a fresh supply put out; the benches or chairs should be put in place, one at the side of each cot; the blinds should be drawn and the windows adjusted for fresh air.

In addition to this putting in order there is the daily cleaning of the floor and dusting of all furniture and window ledges to be done and the changing of pillow slips as necessary. During vacations the cot covers, mattresses, blankets, and pillows should be aired: during the long vacations the mattress covers should be washed and the cot covers and blankets sent to the cleaners with the woolens returned for storage in moth proof bags.

Care of Store Rooms and Storage Cabinets.—Store rooms and storage cabinets should not become a catch-all for junk. They should be given a thorough cleaning at least twice a year when all extraneous matter is removed. Once each season they should be inspected and put in order. Things stored away for a season or more should be put on shelves that are labeled and enclosed by doors with locks, with a list of contents for each compartment attached to the door. After things have been removed to temporary storage for seasonal use, they should be returned to permanent storage immediately when the period of their use is over: they should be returned directly to the compartment assigned them. Things taken from the temporary storage cabinets in the gymnasium should be replaced at the end of each class period.

There should be special racks designated for tennis rackets, hockey sticks, golf clubs, etc., and special spaces should be set aside for the various sizes of balls. There should be one special compartment set aside for sports equipment to be repaired and as soon as an article falls in that class it should be placed in that compartment so that when repair work is in order the pieces are already collected together.

Walls.—All painted walls should be repainted every two years if possible: all walls in all the rooms (office, dressing rooms, gymnasium,

etc.) should be wiped with long-handled mops at least once a year: all that are constructed to stand the use of water should be flushed down two or three times a year, using garden hose. The walls to toilet and shower compartments should be flushed weekly when the floors are scrubbed.

Windows.—Once a month all windows should be cleaned on the inside and during the spring vacation and at the close of the summer vacation all should be washed on the outside. The janitor should follow an inside-window cleaning schedule which will permit the washing of one or two at a time all the year round amidst his daily tasks so that it is time to start on a new round as soon as he has completed the last window in the series. This dispenses with a big window-washing campaign at set intervals which disrupts all other cleaning and caretaking.

All window ledges all over the building should be wiped every day: this should include the upper sashes which, with careless cleaning, are a constant source of dirt gathering for the hands of luckless persons who attempt to lock or unlock windows. Neglect of cleaning "out-of-sight" places of this sort is inexcusable.

Those windows of dressing rooms which are not impenetrable to sight should be treated to render them opaque. The usual treatment is application of paint which easily becomes scratched off in spots making the windows unsightly as well as removing the protection intended: such treatment should be repeated as frequently as is necessary to keep them in proper condition.

Ventilation.—Open windows are superior to all other methods of ventilation. The windows in the exercise rooms should be kept open all day long during all months of the year—at least part way open even in cold weather in most climates. When too cold to permit of this during class hours, they should be thrown wide open between classes. Not a school day should pass without direct ventilation of this sort. If the janitorial services are such that there is no one available to open windows between classes, orders must be given to have the windows so adjusted that the teacher can control them. A class should not be deprived of proper ventilation just because the janitor doesn't open the windows and the teacher can't manage them.

In event windows have been closed all day, those in the offices, dressing, shower, and toilet rooms should be thrown wide open for a period of airing just before locking up in the evening or early the next morning. Once a week they should be left open for an hour at least—a half day is preferable. In mild weather all windows should

be open all day long except when windy. If their opening causes difficulties in dressing rooms, a rearrangement of locker placement might easily remove some of the difficulties. Screens placed before some of the shower room windows might permit of better ventilation there.

Temperature.—The temperature of the class rooms should be checked twice a day and should be kept as near the following figures as possible, although this is much easier said than done:

For the gymnasium, rest room, games room and dance studio	60–63° F
For offices, locker, and shower rooms.....	68–70° F
For the swimming pool.....	84° F

A relative humidity of 40 to 70 per cent should accompany a temperature of 68 to 70 degrees Fahrenheit for the most desirable conditions.¹

CARE OF GYMNASIUM FLOORS

The cleanliness standard for gymnasium floors must be superior to that for other floors of the school plant since the modern physical education program frequently requires exercise in a lying position. The proper care of these particular floors furnishes, time and again, controversial matter between superintendents of buildings and physical education teachers not only because of this higher standard of cleanliness calling for a floor finish that renders cleaning an easy task but because of the equal need of a high finish without slipperiness.

Floor Treatment.—A recent article sums up the needs as follows:

Most gymnasium floors are of an especially high grade maple and they are usually more carefully laid than the other wood floors in the building. The market is flooded with products of various types, all of which claim to be the ideal treatments for this type of tests. Many of them are of doubtful value, while others are not only detrimental to floors but are expensive to remove once they have been applied and have proved unpractical. Most of the treatments proposed are unduly expensive, either from the actual cost of the material, the labor necessary to apply and maintain the floor, or both.

Efficient floor maintenance requires that the gymnasium floor treatment shall meet the following conditions:

1. The material must seal the pores of the wood against moisture and stains, thus preserving the wood against undue swelling and warping as well as maintaining a uniform color.

¹ State of Washington, *Health and Physical Education, A Program for High School Boys and Girls*, State Department of Education, Olympia, 1934, p. 13.

2. The surface must be hard, durable and elastic. It must not chip, flake or be easily marred, and must remain dry and free from tackiness. Dry mops used on the surface should leave no lint adhering to the finish. The surface must wear evenly. Worn spots could be easily repaired without the treatment becoming too thick on the unworn areas after recoating.

3. The gymnasium floor should be sanitary. It should not collect and hold dust or dirt. It should be possible to remove dust from the floor by means of a dry mop or a mop wet slightly in cold water. Burns caused by sliding should be reduced to a minimum and above all there must be no inoculation of burns due to collection of dirt on the surface.

4. The surface should be neither sticky nor slippery. Because of the varied uses required of the gymnasium floor, it should be suitable for fast games like basketball and at the same time be serviceable or easily made serviceable for dancing.

5. The treatment must be economical to apply and maintain. The original treatment must not be prohibitive in cost. Labor should be reduced to a minimum.

6. The floor should present an attractive appearance. The natural color of the wood should be preserved and repeated treatment should not darken the wood to any appreciable extent. The floor should be free from high polish and excessive highlights for gymnasium uses. The color should be uniform and the marker lines should stand out clearly.²

For floor treatment the members of the Society of Directors of Physical Education in Colleges show a preference for oil (usually linseed) and favor equally varnish and natural finish. Stevens Technical School uses China wood oil and the University of Illinois uses a combination of boiled linseed oil, turpentine, and "Jap dryer."³

The Social Dancing Problem.—In granting permission for the gymnasium floor to be used for dancing parties, care should be taken to see that the chairman of the party committee is instructed as to the treatment of the floor. The department should draw up written instructions covering all matters to be considered under such circumstances and a copy should be given to the persons responsible for social events with the understanding that if the instructions are violated that group will forfeit future privilege of use of the gymnasium.

Students are apt to treat the gymnasium inconsiderately, throwing cider, ice cream, and sticky candy on the floor and tramping it into the

² Heber U. Hunt, "The Care of School Floors," *The Nation's Schools*, September, 1933, p. 59.

³ Committee on Construction, "Trends in Physical Education Facilities and Gymnasium Construction," *Research Quarterly of the A.P.E.A.*, May, 1930, pp. 41-50.

finish. The physical education teacher who has pride in her work has equal pride in her workshop and cannot but deeply resent such treatment of class rooms. Often students, and even other teachers, if uncontrolled, will so treat the floor for dancing that it will be rendered unsafe for physical education activities. Therefore the physical education department must protect itself and its students against misuse of the facilities by drawing up careful instructions and strictly enforcing them.

No dancing groups should be permitted to put on the floor any preparation to make it slippery other than the particular kind and amount named by the department. Borax spangles or crystals are preferable to other preparations since they dissolve readily and therefore require less water on the mop to remove them: this is an important point in their favor since too much scrubbing is hard on floors. Cornmeal which is advocated by some for use on dance floors is very difficult to remove as it seeps into cracks and crevices and does not dissolve easily.

No dances should be scheduled at times when the floor cannot be put into proper condition for games before the next class unless the group having the party pays for the additional janitorial services needed to put it in order on time.

Routine Cleaning.—For daily cleaning the floor should be sprinkled with a floor-cleaning preparation and wiped with a wide floor-mop. None but a good grade of anti-dust-compound oil should be used, mixing one quart thoroughly with one-half pail of sawdust. If necessary, in order to keep the floor in proper condition for all classes, it should be gone over with a dust mop two or three times during the day in addition to the oiled mopping. Care should be taken that the mops are clean and do not leave an oily film on the floor.

Vacation cleaning should consist of a thorough washing: once a year this washing should be followed by two or three days of drying, after which some floor finish should be applied.

CARE OF THE POOL

Cleaning.—The entire pool room as well as runways should be scrubbed each day the pool is used. Once a week a disinfectant should be used in the scrub water: if the daily load is very heavy, it should be used daily. No person wearing street shoes should be permitted to step on the runway. Floating material should be removed as soon as discovered on the pool surface. Visible dirt should not be allowed to re-

main on the bottom and sides of the pool for more than twenty-four hours; whenever it is visible it should be cleaned by a suction cleaner which may be operated by the circulation pumps.⁴ "Floc" from bathing suits and certain sediments will accumulate and this also should be removed by the vacuum cleaner. The water should be kept so clean that the pool bottom is always visible at all points from the runway. The rim of the pool should be kept free from accumulations of grease. The required use of bathing caps will prevent hair oil accumulations. Boys as well as girls should wear caps.

Oxalic acid may be used to remove rust spots on tiling which should otherwise be cleaned with soap and water. During this weekly cleaning the diving board should be given a good bath with a disinfectant.⁵

Keeping the Water in Condition.⁶—The best methods in use for treating water are: filtration to remove dirt, hair, skin scales, fibers of suits, and bacteria; chlorination to purify the water; alum in the filter to coagulate bacteria and thus prevent their passage through the sand bed; and lye (crude caustic soda) to alkalinize the water which the alum tends to make acid. The water should be in constant circulation through the filter which should be cleaned daily "by reversing certain valves which stop the downward flow of water and turn it upward through the sand," thus carrying the accumulation on the sand into the sewer.

Chlorine is more convenient to use and less expensive than other chemicals for purifying water. It may even be added by hand in the form of chlorinated lime. The proper amounts to use are 0.3 part to a million parts of water. (This is the disinfectant which is recommended by the American Public Health Association and State Sanitary Engineers.⁷) Whenever colon bacteria are reported as present in any water test, more chlorine should be added at once.

Since alum is usually used in the filter and it "tends to make the pool water acid," and an acid condition is bad for eyes and nose, there should be added to the water some alkali such as washing soda or crude

⁴ Joint Committee of American Public Health Association and The Conference of State Sanitary Engineers, *Swimming Pools and Other Public Bathing Places*, Reprint from *American Journal of Public Health*, 1930, p. 24.

⁵ State of Washington, *op cit.*, p. 222.

⁶ The material under this heading is from Jean Broadhurst, *Simplified Control of Swimming Pools*, Bureau of Publications, Teacher's College, Columbia University, 1931, Reprint from *Teacher's College Record*, May, 1931, pp. 4-7, 11 and 24.

⁷ Joint Committee of American Public Health Association and The Conference of State Sanitary Engineers, *loc. cit.*

caustic soda (lye). Both are inexpensive, but lye is usually preferred since it does not make the water look milky. With this addition of soda to filtration and chlorination it is not difficult to keep within the safe count.

For a pool of sixty thousand gallons capacity with a filter in constant operation for a daily average of one hundred fifty bathers, there is ordinarily required per week, to keep in proper condition, twenty pounds of alum, sixty pounds of soda or lye, and twelve pounds of chlorinated lime: the first "fed into the water on the way to the filter," the other two added nightly by dissolving each in a pail of warm water and "dribbling" it into the pool from the edge. The soda is to prevent irritation of eyes and nose and to make alkaline conditions for the chlorine treatment.

To sum up the main points of maintaining proper water conditions, there should be:

1. Filtration for clarity and bacterial removal
2. Chlorine for bacterial destruction
3. Soda to prevent irritation of eyes and nose
4. Tests to learn bacterial count.

Testing the Water.—There are simple water tests that can be given by any instructor or by the operator. Such tests are fully explained in available literature.⁸ Colon bacteria are the cause of many disturbances such as colds, sore throats, and sinus infection: great care should be exercised to ascertain the bacterial count of the pool water and to keep it within safe limits. The American Public Health Association sets 300 bacteria per cubic centimeter as the maximum bacterial count to be allowed for safety.⁹

Athlete's Foot.—The condition commonly called "athlete's foot" is prevalent about swimming pools if strict attention is not given to the care of the pool and to the examination of the feet of bathers. No persons should be permitted to walk about the pool runway or to enter the pool without first walking through a footbath of some fungicidal solution. It must be the particular assignment of some one responsible person to keep the footbath cleaned and filled with the proper solution. All persons known to have even a suspicion of a trace of this difficulty should be excluded from the pool and shower rooms until there is not the slightest trace of the condition left.

⁸ Jean Broadhurst, *op. cit.*, gives full directions for tests.

⁹ *Ibid*, p. 6.

The Operator's Reports.—The operator is the key person in the care of the pool. In order to overlook nothing he should have posted for constant reference a complete list of his duties. The omission of certain of these items may mean health hazards that are great. To be sure that the interests of the bathers are safeguarded, the director should require of the operator a daily report concerning the work of the previous day. (Fig. 29.) These reports should give a statement of the following:

1. The actual time the pumps and filters were in operation.
2. The actual time each filter was cleaned.
3. The actual time the chemical was added, stating quantity.
4. The actual time the bottom and sides of pool were cleaned.

Form H.P.E. 66										
WICHITA PUBLIC SCHOOLS Department of Health and Physical Education DAILY SWIMMING POOL TESTS										
School _____		Date _____			Engineer _____					
	Bacteria Count	B. Coli	Alkalinity	Chlorine Pound Per 24 hrs	Temperature of		Filter Back Wash	Alum Added	P. H. Added	Ortho- tolidin Tests
					Pool	Room				
Thursday										
Friday										
Saturday										
Monday										
Tuesday										
Wednesday										
REMARKS:										

FIG. 29.—Card for weekly record of swimming pool condition: three by five inches in size.

5. The results of water test for excess acidity.
6. The results of water test for excess alkalinity.
7. The results of water test for excess chlorine.
8. The bacterial count.¹⁰

¹⁰ Arranged from Joint Committee of American Public Health Association and the Conference of State Sanitary Engineers, *op. cit.*, p. 32.

THE CARE OF APPARATUS AND STATIONARY EQUIPMENT

Apparatus.—Constant vigilance must be practiced to see that all apparatus is in safe condition. Screws should be tight, ropes should be kept in repair, and the first signs of wearing out should be noted for follow-up observations. No chance should be taken on the breaking or coming apart of any piece of apparatus which might cause injury to a person.

There should be a special "home" place for each piece of apparatus and after use it should be put away in its proper place with all parts in proper order, ropes coiled, supporting pins and screws in place, bars adjusted for storage, loose accessories collected together, etc. There is no excuse for gymnasiums to be untidy with apparatus cluttering up the room.

Every day all apparatus that can be reached should be dusted. Although overhead and out-of-easy-reach pieces need not be dusted daily, the janitor should be notified about such pieces the day previous to their use so he will give them special dusting attention before they are needed. Once a week all pieces of apparatus, including the overhead and out-of-reach pieces, should be wiped with an oiled cloth. Once a year all should be given a thorough cleaning with "ivory" suds water. (An old time formula for a good apparatus cleaner is as follows: boil one medium sized cake of Ivory soap and one-third medium sized package of Star Naphtha in one gallon of water; let it stand over night and next day beat it thoroughly; use one teaspoon of this mixture to one gallon of water.) Also once a year each piece of apparatus should be tested with three times its capacity load placed upon it. At the same time all ropes should be inverted and all pieces of apparatus which need oiling should be oiled.

Stationary Equipment.—There are numerous odds and ends of duties to have fulfilled all of which contribute to the efficiency of departmental work. Some of them are as follows:

1. Keep the bulletin boards cleared of out-of-date announcements.
2. Clean the drinking fountain pedestals daily and once a week give them a thorough scrubbing with hot water and some cleansing agent. Keep a constant watch to keep chewing gum removed. A student campaign should take care of this last item.
3. Wash the inside of all wash basins daily with a cleansing powder: wash twice a day those that are used frequently during the day. Once a

week give all parts, inside and out, a thorough cleaning with hot water and cleansing powder.

4. Every class hour, close all locker doors left open by careless students. Guard that unassigned lockers are not used by students and also not by the teachers and janitors as a "catch-all" for junk. Once a week wipe with a damp cloth the outside of all lockers and basket racks, tops as well as ends and doors. At the close of each term empty all lockers and baskets and clean them thoroughly, both inside and out, with a disinfectant or with warm water and soap.

5. Wash all mirrors at least once a month and wipe them and their frame work once a week.

6. Inspect soap containers weekly (more often if necessary) and keep them filled.

7. If the shower heads are not self cleaning, remove them and clean them during each vacation period.

8. Twice a day wipe all toilet seats with a cloth and once a day clean the inside of the bowls using some disinfectant on a cloth attached to a stick. Keep this cleaning stick and container of disinfectant out of sight when not in use and renew the cloth frequently. The sprinkling of cleaning powder into the toilet is not a sufficient cleansing method. Once a week wipe with damp cloth the outside of the bowl and all other parts not cleaned daily.

9. Check the scales weekly for adjustment—more frequently if found necessary.

10. Have the pianos inspected twice a year and tuned if necessary. Do not permit students to "pound" on them or mistreat them in other ways or to move them unnecessarily. Over the week ends and during vacations keep them covered and when not in use keep them locked if necessary to do so to protect them. If a grand piano is to be moved about frequently a frame work with wheels should be made and attached to the legs of the piano.

11. Keep the first aid cabinet well stocked with all necessary supplies and when not in actual use keep it locked at all times, with the key, however, quickly available. At least once a month empty the cabinet and clean it on the inside. Permit no accumulations of materials that do not belong there. Permit no equipment and supplies that do belong there to be left outside when not in use.

CARE OF SPORTS EQUIPMENT AND SUPPLIES

Sports equipment should be kept clean. At the close of each day the easily removed dirt that has collected during class use should be removed. Weekly inspection should take care of the more difficult cleaning.

At the end of each season the equipment used for that season

should be given a close inspection: especially is a check on losses important since the possibility of recovering lost articles is greater at the close of the season than at the close of the school year. Needed repairs should be ordered at once if the articles are to be used at a later season during the year and needed replacements should be noted for the time when orders are to be placed. All articles ready for permanent storage should be placed there in their proper spaces to await the next call to service: a record of each item stored should be made as it is placed there. After articles are repaired and are ready for storage, they, too, should be placed there immediately and so recorded in the office. No unused equipment should be left out to clutter up the department: every article not in current use should be locked up in storage.

All articles that are in current use should be transferred from permanent to temporary storage for the season with a temporary place for everything and everything in its place when not out on the floor or play field for class use. Much equipment could be saved from the repair shop and graveyard if it were given proper care.

Archery Tackle.—When not in use arrows should be placed upright in a rack or a box. Bows should be hung, from a hook, or even better a wooden peg, in a cool dry place. Not even during class should they be stood on end when not in use. Some sort of rack for class use should be provided. Occasionally all bows and arrow shafts should be wiped with an oiled rag. Spare strings should be kept coiled but in a coil no smaller than three inches in diameter. All strings should be kept well waxed with beeswax. Targets should be stored flat: standing them on edge breaks down the straw. They should be kept dry and in a place as inaccessible as possible to mice, rats and squirrels.¹¹ These admonitions apply to care during current use as well as to permanent care during off-season storage.

Balls.—It is difficult to classify all the balls that a department might own but for the sake of instructions on care they are classed as in the paragraphs below. All leather balls to be taken out of doors in wet weather or to wet fields should be oiled. They should not be placed near heat when wet.

Inflated Balls.—Between seasons of use all balls should be deflated with just enough air left in them so that the walls of the bladder do not touch. During hot weather talcum powder should be sprinkled inside the bladders for further protection. When in use they should be

¹¹ William P. Uhler, Jr., "The Care of Archery Equipment," *Journal of Health and Physical Education*, February, 1935, pp. 38-39.

checked daily and kept inflated to proper air pressure according to the following scale:

basketballs to 12 pounds pressure: official circumference is 30 to 31 inches.

soccer balls to 10 pounds pressure: official circumference is 27 to 28 inches.

volleyballs from 7 to 8 pounds pressure: official circumference is 26 to 27 inches.

The above figures are for new balls and for the use of girls and grade school boys. Figures for high school boys and men are slightly higher for they can safely use harder balls. Those balls that have had long or hard use should be inflated from 1 to 2 pounds less than the above figures, as should balls that are to be used by young children.

For inflating none but a hand or foot pump should be used: pressure enters so rapidly from an automobile tire air-hose such as is used at filling stations that the seams of the bladder may easily rip. The inflation should be slow with occasional pauses to shake and squeeze the ball to assure that there are no folds caught in the bladder. To assure accuracy an air pressure gauge should be used for it is hard on balls to over-inflate them. The janitor or person who does this work should not be permitted to use guess work, thumping the balls and estimating their pressure by the feeling of hardness.

Even with careful use of a pressure gauge, balls may be over-inflated by mistaking the type of ball at hand. It is easy at times to be confused about soccer and volley balls especially if the covers are cut from the same design as does happen in some makes. Not only does the confusion lead to over-inflation of volley balls but to their misuse by students. It is hard on them to be kicked about for soccer balls. To avoid this the department should own a stencil of the letters "B," "S" and "V" and the proper letter should be painted on each ball before it is put into service. (Check with the circumference scale above when in doubt.) Adding to this the month and year of purchase assists materially in later checks on the length of service of the balls.

Rips should be repaired as soon as discovered or if there is a sufficient supply to permit a few ripped balls to be dropped from service it might be well to hold all until the close of the year when on the repair of the entire lot a financial saving might be made on repair allowances.

Hint on Lacing a Ball.

Cut a slit on the wide end of the lace just long enough to pass the other end through. Lace through the end holes so that this slit comes underneath the flap. Then pass the needle end of the lace through this slit and pull tight. This method insures a proper start for lacing the ball; it will never pull out as a knot will, and cannot slip through the eyelet. Such a lace can easily be removed at will.¹²

Hard Balls.—Golf and hockey balls should be painted once a week during the season of their use, semi-weekly if necessary to keep them white. The week-ends should be used for thorough drying of the paint. All should be given a final coat of paint at the end of the season before putting them away in permanent storage. Bathtub enamel is good for this purpose although there are special paints on the market for hockey balls.

Baseballs.—There is little care to give baseballs beyond cleaning with a leather cleaner now and then during the season and before putting away in storage, mending all rips and discarding those that are too soft and too badly damaged to pay for repairing.

Tennis Balls.—The only thing to do with tennis balls at the close of a season is to save a few of the best for emergency use and for certain games of low organization and to discard the rest: it is poor teaching to permit tennis classes to use dead balls. Orphans' homes and orthopedic hospitals are always happy to receive donations of cast-off balls.

Those that are left over should be tested by holding them out at arm length at shoulder height and letting them drop of their own weight. Those that rebound knee high or higher are in proper condition for class use. All others should be discarded as tennis equipment.

Bats, Clubs, and Sticks.—All clubs should be wiped with a dry cloth at once whenever returned from use wet. They should be kept away from heat. Once a week they should be wiped with a cloth soaked in linseed oil and all rough places should be smoothed down. At the end of the season, after all rough places are smoothed down, they should be shellacked; badly splintered or cracked clubs should be discarded; to all that are to be retained linseed oil should be applied, for two or three days in succession, before putting them away in permanent stor-

¹² Playground and Recreation Association of America, *Play Areas: Their Design and Equipment*, Copyright, 1928, A. S. Barnes and Company, Publishers, New York, p. 40.

age. If stored in a dry place a container of water should be kept near the wood clubs.

Golf Clubs.—All golf clubs should be kept horizontally on a rack since they warp readily when left standing on end for long stretches of time. The rack should permit the heads of the clubs to hang free in space since the entire length of the club shaft must be held in a horizontal position. The steel parts of these clubs should be kept polished with a scouring powder.

Leather Goods.—There is a large amount of leather goods among athletic equipment: inflated balls, baseballs, hockey balls, golf club handles, archery finger-tabs and bow saddles, hockey goal shoes, shin guards, baseball mitts, and so forth. All leather parts should be treated with saddle soap or some other leather cleaner and preservative.¹³ Treatment should be given at the opening of the season and at least once a month thereafter and again at the close of the season before storing away for an out-of-service period. Three or four times a year baseball mitts should be rubbed with a special glove-oil.

Nets and Standards.—The various sized nets should not be confused and misused: special markings to avoid this have been discussed in a previous chapter. All net cords should be kept in repair and their standard attachment ropes so arranged that they can be pulled taut enough on the posts to keep the net tightly drawn at the correct height at the center: a loose net spoils a game. Standards should be supplied with hooks at the various heights necessary for the various net games for which they are used.

Rackets.—To prevent warping rackets should be stored in a vertical position heads hanging downward: it is a simple matter to have notches for the handles cut into a shelf in a store room. They should be inspected at the opening and again at the close of the season of use by one who understands their care and should be restrung when necessary. They should be kept in a dry place and if the extra item of expenditure can be afforded, they should be kept in presses.

Unclassed Equipment.—Probably no department in a school has a greater variety of equipment and supplies to take care of than does the physical education department. Many of its items defy classification hence the following individual list.

¹³ There is on the market a cream preparation that comes in convenient sized cans and is especially made for athletic balls. It may be purchased in 12 ounce cans at fifty cents a can.

Discs.—Shuffleboard discs should be painted frequently enough to keep them in good color. Perhaps a semi-annual painting would do unless the game is very popular. Ordinary house paint will suffice; enamel is too easily cracked off.

Flutter Boards.—A waterproof painting will be necessary for flutter boards and as frequent repaints as are necessary to keep them in good appearance. They should not be left in the water when not in use nor should they be scattered about the pool runway. There should be a place for them (a place handy to the pool's edge to save carrying) and, when not in actual use, they should be stacked up neatly in this place.

Horseshoes.—Horseshoes should be kept clean and free from rust and before putting away at the close of a season they should be given a special cleaning with scouring powder.

Shuttlecocks.—During their season of use the feathers of the shuttlecocks should be dipped at least once a week in warm soapy water, reshaped, and left to dry before putting them away in a box or case: during this dipping process care should be taken not to let the base get wet—only the feathers.

The tube containers which the birds (shuttlecocks) come in when purchased make excellent storage cases and should be saved for this purpose.

Track and Field Equipment.—To avoid checking, javelins should be kept in a cool place and, to avoid warping, should be suspended vertically. The discus should be kept clean and scoured as necessary. Jumping standard bars should be put away horizontally and should be discarded when they sag on the pegs.

THE CARE OF MISCELLANEOUS ITEMS

Bathing Suits and Costumes.—After each use, bathing suits should be washed in hot suds (boiling is desirable if the material will permit it) and dried in a high temperature dryer or baker. Most organizations own the suits used in their pools and therefore can control the cleaning and sterilization problem. School-owned costumes are also usually laundered after each use although some schools check out costumes to students at the first of the week and call them in for laundering at the end of the week. The responsibility toward student-owned suits is that of enforcing the rules concerning cleanliness of costumes.

Curtains, Examining Robes, and Matron's Uniforms.—All shower and dressing booth curtains should be laundered at the close of each term, all robes, after each use, and uniforms, as needed. Before storing away for the long vacation all dry goods should be inspected and mended and necessary replacements should be ordered. Daily care should be taken to observe that all shower curtains are hung properly so the hook eyelets and cloth will not be torn.

Mats.—Students and janitors should not be allowed to drag mats about on floors thus collecting dirt as if they were weighted floor-mops. If girls must handle heavy mats there should be at hand a truck on wheels. It also does no harm to be considerate of the janitor's back.

Those mats which do not have washable covers should be treated with some preparation such as gutta-percha paint, after which treatment they may be wiped with a damp or an oiled cloth and thus kept clean. This treatment tends to stiffen them and make them heavier but that is preferable to unsanitary equipment.¹⁴ This expense is money wasted, however, if the mats are not washed frequently and actually kept clean since the whole object of the treatment is in the interest of cleanliness.

Removable mat covers should be removed and sent to the laundry as soon as they are soiled. The object of having them is to have a clean surface to work on and this purpose is defeated if the covers are not cleaned frequently.

Towels.—Students should not be permitted to throw towels about on the floors or to abuse them in other ways. Containers for soiled towels should be placed at convenient places throughout the dressing room unless there is a "check-in" system in which case the "check-in" place should be located for the convenience of all. Towels should be "fluff"-dried, not pressed or folded.

Waste Disposal.—Unightly waste containers should be kept out of sight. Those that are in constant view should be scrupulously clean and in good condition and should not detract from the general appearance of the rooms in which they are placed. Occasional painting of old metal containers in colors to harmonize with the room decorations turns many "eye sores" into decorative assets.

Waste containers should be large enough to take care of all waste adequately. If certain containers overflow on occasions these should be

¹⁴ The specific paint prepared for use on mats, full instructions as to its use and information as to the quantities necessary for given mat surfaces may be procured from A. G. Spalding and Brothers, Chicopee, Massachusetts.

emptied more frequently or replaced by larger ones. It is poor house-keeping to permit used paper towels to accumulate on the floor around overflowing waste baskets.

In each toilet booth there should be hung a stout cord strung with a supply of small paper bags which will thus be at hand as containers for sanitary napkins until they can be disposed of later in the metal sanitary container in the main toilet room. The absence of such conveniences leads to incorrect disposal of napkins and subsequent damage to the plumbing system or to carelessness that puts a burden on the cleaning staff. So simple a matter as a handy supply of paper bags solves these problems. It should be the duty of the matron to keep the supply of bags in each booth replenished.

CARE OF PLAYING FIELDS

The Grounds.—In many schools outdoor work for girls is almost impossible because the school administration has put its entire budget allowance for fields and their maintenance into the boys' program. If there is space available for the girls' field the lack of money to put it in condition need not bar the outdoor program; the girls themselves can rake, hoe, pull and cut weeds, pick up stones and broken glass, and push rollers. As a student the author herself spent many hockey class hours at such labor helping her classmates put a hockey field in condition when the college exchequer was low. It was great fun and excellent exercise.

To remove foreign matter that has accumulated on a field is a task of hours for a caretaker but only the work of a few minutes for students if the teacher will line up her class at one end of the field in one line spread out to cover the entire width and then march them slowly down the field with orders for each to pick up all stones, pebbles, broken glass, etc., in her path as she moves in her designated alleyway towards the opposite end of the field. A few monitors should be appointed to follow the line with receptacles for the accumulated debris. The author used this method successfully some years ago when forced to use a field which had been constructed on the site of a number of old houses which had been torn down and the basement excavations filled in. For a number of years afterwards, broken glass, dishes, stones and pebbles of all sorts worked their way to the surface after every rain. Class work would have been disrupted waiting for the service of caretakers but a few minutes of field work taken out of the first class hour

cleared the surface until the next wet spell. A writer on work in rural schools also recommends the use of students for such field work.¹⁵

The dust nuisance is a serious problem on many play fields. There are now on the market inexpensive products which have been developed to handle this health hazard.¹⁶ Calcium chloride treatment and oiled clay are two suggested methods of combating this nuisance.

Fence.—The fences around play areas should be kept in constant repair. Especially should the gates be checked frequently and the locks kept in order.

Goals.—All goal posts should be kept in repair and at least once a year freshened with paint. White paint is preferable to colors as it shows up better in twilight.

Markings.—Temporary court markings should be retraced twice a week or more frequently as found necessary. The outside boundaries of permanent fields should be marked by stakes pounded in flush with the ground which will be there as permanent markers after all trace of line markings are lost during vacations or long wet spells or off seasons: this will save the expense of laying out the field anew each time before the first markings are made.¹⁷ If the school is short on funds for field upkeep, the students can be taught to mark their own courts: a sack of lime, a pail, a tin cup or a watering can, and a supply of water suffice as minimum essentials for such a task.¹⁸ A standard marker is preferable to the tin cup method but the latter is not impossible in an emergency. Although this amateur method is laborious and time consuming, it has been known to provide occasions for many jolly frolics with students.

Stationary Equipment.—An excellent way to secure the interest of the children in the care of outdoor equipment is to have it all installed with the teacher supervising and the school children there to help and observe. This will give them "a sense of proprietary interest

¹⁵ Jewel Nolan, "Organized Recess Period for Rural Schools," *Journal of Health and Physical Education*, April, 1933, p. 35.

¹⁶ Ross L. Allen, "Dust on Playgrounds," *Journal of Health and Physical Education*, May, 1936, p. 324.

¹⁷ N. P. Neilson and Winifred Van Hagen give excellent suggestions for permanent markers and also for permanent boundary lines on page 52 of their book, *Physical Education for Elementary Schools*, Copyright, A. S. Barnes and Company, Publishers, New York, 1930.

¹⁸ To facilitate this work materials should be constantly at hand ready for use at any moment. Slaked lime makes good dry markings: unslaked lime mixed with water makes good wet markings. The liquid should be mixed to a consistency that will cling to the ground and not run and will readily pour into a two-inch width.

in the result.”¹⁹ Once installed each piece should be inspected once a week when in use: everything needing repair should be repaired immediately or closed from use until it is repaired.

THE PROBLEM OF REPAIR WORK

There is such a variety of repair work to be done in a physical education department that it needs to be divided among a number of persons; the janitor, dressing-room matron, teachers, school repair shop, and outside agencies.²⁰ Much repair work can be done within the department if the attendant is supplied with proper materials. A repair kit should contain:

Air gauge	Needles, assorted	Rags
Beeswax for archery	Needles, curved	Sandpaper
Bicycle tape	Net cords	Scouring powder
Cement in tubes	Paint, white bathtub	Screw driver
Hammer	enamel for hockey	Shellac
Leather cleaner	and golf balls	Tape, cotton
Leather lacings	Paint, white (house-	Thread, cotton and
Leather oil	hold)	linen
Linseed oil	Paint brushes, assorted	Turpentine
Nails, assorted	Pliers and wire	Wire

Automobile inner tube patches are excellent for repairing bladders of inflated balls.

INVENTORIES AND WORK LISTS

It should be a part of the character training program of the school to hold the students responsible for the proper use and return of equipment and supplies. It is a matter of economy to the school to keep complete check lists of all equipment owned and at least twice a year to take an inventory of it all. The physical education department should be held responsible for a checking of its equipment and, since its program usually covers three or four distinct seasons of use during the year (fall, winter, spring, and summer), an inventory of all equipment used for each season should be taken at the close of the season before it is removed to permanent storage. All items not used in any particular year should be inventoried at least once during the year.

¹⁹ A. V. G. Upton, *Manual of Physical Education for Elementary Schools*, State Board of Education of West Virginia, 1932, p. 203.

²⁰ The Board of Education of Wichita maintains a central sports equipment hospital which is unique. The head of this department of work has become so proficient that he makes practically all of their balls and keeps them in such repair that they see long service at a great saving of expense. Through his resourcefulness nothing is discarded: he contrives some other use for all equipment which is too seriously damaged or worn out for its continued use in the activity for which it was originally designed.

Taking Inventory.—Student leaders make good assistants for this work. They will assume this responsibility readily and in so doing will acquire such an interest in the equipment that they will be able to create a feeling among the other students for the proper care of this school property. The instructors should supervise the inventory, each handling the lists covering her own particular class equipment since she is familiar with it. This should be considered a legitimate part of a teacher's assignment for she is prepared to know the equipment and its needs as is no other person.

In taking the inventory the teacher should have at hand a list of all equipment to be checked. The list should state the amount of each type of equipment owned and should call for a report of quantity at hand and condition of all items.

As the inventory progresses all articles in condition for permanent storage should be placed there at once; all needing some minor attention such as cleaning, oiling, sandpapering, etc., should be placed in the work basket of the person who looks after such work; all needing repair should be placed in the repair basket; and all to be discarded, in the junk pile. It is an unpardonable waste of time not to sort all articles as they are being inventoried.

After all inventories are completed the work and repair baskets should be emptied as rapidly as possible and all equipment placed in permanent storage. As repairs are completed, the inventory lists should be corrected so that, when the next season of use arrives and the teacher inquires about the equipment, the lists will show the total then actually on hand for class work.

Inventory Lists.—For physical education work, inventory lists are easier to handle if with a few exceptions all equipment and supplies are listed alphabetically by activities.

Since certain balls and nets are easily confused, it is best to list for checking all such balls and nets together on one list, otherwise it is easy to count some twice and so be unaware of losses. It is also well to place all dry goods, such as examining robes, pillow slips, shower curtains, etc., on one list together. (For a sample inventory list see Table VII.) There should be a similar sheet for each activity and one each for dressing-room equipment and supplies, office equipment and supplies, examining-room equipment and supplies, special physical education janitorial equipment and supplies and repair work, and a final sheet for all miscellaneous items which elude classification.

Work Lists for the Care of Facilities and Equipment.—Lists of everything that needs to be done to care for the facilities and equipment should be prepared in full detail by the director and a copy covering her particular responsibilities given to each person. The director should see that all items on all these lists are checked frequently to be sure that the proper care is being given to details. In departments where there is but one teacher, that one needs to perform all the duties listed below for both director and instructors; if there is no dressing-room matron and no special operator of the pool, the one teacher will need to divide the items of these lists between the janitor and herself. If the janitorial service consists only of sweeping and an occasional dusting, as is the case in many schools, then it will be necessary for the teacher of physical education to take upon her own shoulders practically all of the items on all of the following lists until she can persuade the higher administrative officers to supply assistance. The responsibility for the care of the physical education plant must be assumed by the physical education teacher if there is no one else appointed to take over that supervision. Because many physical education teachers fail to assume this responsibility the physical education program itself falls into disfavor. Table VIII gives a rough outline of assignments, omitting all reference to the pool operator's duties.

The Director's Responsibilities.—The director's main job in regard to the care of the building and equipment is three fold: (1) assigning the various tasks to those who are members of her staff (janitors, matrons, instructors, and clerks); (2) placing orders for things to be done by others; and (3) checking to see that the work is done and properly so. Sufficient help of the right sort must be procured; reports must be made to the head of buildings and grounds concerning painting, repairs, and changes needed about the building and playing fields; equipment and supplies must be ordered and in sufficient time for them to be on hand when needed; and the work that needs to be done must be checked on constantly.

In making out the work lists for the janitorial staff it is frequently necessary to arrange the daily work on an hourly schedule, the weekly tasks on a daily schedule and the monthly and less frequent tasks on a monthly calendar in order to be sure nothing is being left undone just because the worker has failed to get it worked into the schedule on his own planning. Janitors and matrons are usually thankful to have this detailed planning done for them and it is time well spent if it gets the work actually done without too many "I forgot's."

TABLE
SAMPLE INVENTORY SHEET AS

INVENTORY

Name of Activity *Tennis and Variations*Date of final record of (5) made in office *May 15, 1937*

(The space below is to be filled out in the office from the records on last inventory and subsequent purchases and before new inventory is taken.)

(1)	(2)	(3)	(4)	(5)
Items listed alphabetically	Description	Number to count on from last inventory. No. (10) col- umn of old sheet	Number added since last inventory	Number to be accounted for at next inventory. Nos. (3) and (4)
<i>Balls</i>	<i>Lawn Tennis</i>	24	12	36
	<i>Paddle Tennis</i>	5	12	17
<i>Nets</i>	<i>Badminton</i>	4		4
	<i>Lawn Tennis</i>	7	1	8
	<i>Paddle Tennis</i>	4		4
	<i>Quoitennis</i>	4		4
	<i>Volleyball</i>	4		4
<i>Net Stands</i>	<i>Iron</i>	2 pr.		2 pr.
	<i>Wood, high</i>	3 pr.		3 pr.
	<i>Wood, low</i>	4 pr.		4 pr.
<i>Rackets</i>	<i>Badminton</i>	12	4	16
	<i>Lawn Tennis</i>	16		16
	<i>Paddles</i>	12	4	16
<i>Rings</i>	<i>Rubber Quoits</i>	6	6	12
<i>Shuttles</i>	<i>Indoor —Badminton</i>	4	8	12
	<i>Outdoor—Badminton</i>	3	5	8
	<i>Darts</i>	5	3	8

VII

FILLED OUT AT CLOSE OF THE YEAR

SHEET

Date of Inventory *May 31—'37* by *Mary Smith*
(Instructor's Name)

(The space below is to be filled out by the person taking the inventory and the sheet is to be returned to the office immediately thereafter.)

(6) Number satisfactory for future use	(7) Number to be repaired	(8) Number to be discarded	(9) Number lost. No. (5) column minus Nos. (6), (7) and (8)	(10) Number to count on for next season. Nos. (6) and (7)	(11) Future Needs and Remarks
12	0	20	4	12	2 doz.
13	0	3	1	13	4
3	1	0	0	4	
8	0	0	0	8	
2	2	0	0	4	
4	0	0	0	4	
3	1	0	0	4	
2 pr.	0	0	0	2 pr.	
2 pr.	1 pr.	0	0	3 pr.	
2 pr.	2 pr.	0	0	2 pr.	
13	3	0	0	16	
12	4	0	0	16	
15	0	0	1	15	1
10	0	1	1	10	
8	0	4	0	8	4
5	0	3	0	5	4
3	0	5	0	3	6

TABLE VIII
WORK LISTS FOR CARE OF FACILITIES AND EQUIPMENT

Time	Men Attendants	Women Attendants	Instructors	Office Workers
Main Responsibilities	Care of department corridors, all exercise rooms, fields and most equipment and sports supplies.	Care of dressing and shower rooms, examining and rest rooms, corrective rooms and offices and all dry goods.	Supervision of equipment used in own classes and of own office and class rooms.	Department general offices and bulletin boards and office supply cupboards.
Daily	<ol style="list-style-type: none"> 1. Keep things in place. 2. Wipe floors. 3. Dust apparatus, furniture, window ledges. 4. Clean drinking fountains. 5. Air rooms. 6. Check air pressure of balls. 	<ol style="list-style-type: none"> 1. Keep things in place. 2. Sweep floors. 3. Dust apparatus, furniture, window ledges. 4. Clean wash basins and toilet seats. 5. Air rooms. 6. Put rest room in order between classes. 7. Check out laundry. 8. Keep lockers locked. 	<ol style="list-style-type: none"> 1. Keep things in place. 2. Keep bulletin boards cleared of own old material. 3. Keep sports-cabinets doors closed. 4. See that equipment and supplies used by self are properly treated and put away. 5. Keep own office tidy and desk top cleared of papers not in use. 	<ol style="list-style-type: none"> 1. Keep things in place. 2. Keep bulletin boards cleared. 3. Keep counters, desk, and supply cupboard in order. 4. Mark and inventory all new equipment as received. 5. Keep typewriters covered at night.
Weekly	<ol style="list-style-type: none"> 1. Thorough special cleaning of all floors. 2. Wipe all woodwork. 3. Work on apparatus and equipment as ordered by instructors. 4. Thoroughly air all rooms. 5. Paint hockey and golf balls if in use. 6. Rub linseed oil into hockey sticks if in use. 7. Sandpaper rough places on hockey sticks if in use. 8. Dip shuttlecock feathers in warm soapy water and re-shape. 9. Check balls for rips. 	<ol style="list-style-type: none"> 1. Scrub toilet and shower rooms with warm water and disinfectant — also toilet seats. 2. Flush dressing room floor with hose. 3. Weekly cleaning of offices, vacuum rugs, wipe furniture and woodwork. 4. Check soap and towel containers. 5. Thoroughly air all rooms. 6. Mend dry goods, supplies. 7. Wipe outside lockers with damp cloth. 8. Clean mirrors. 	<ol style="list-style-type: none"> 1. Report to janitor on Friday all apparatus and equipment to be inspected and prepared for following week. 2. Check court markings for own class work. 3. Order mats cleaned, balls painted and all equipment treated as needed. 4. Check on first aid supplies. 5. Wipe archery bows and arrows with oiled cloth and wax strings. 	<ol style="list-style-type: none"> 1. Weekly cleaning of bulletin boards.

<p>Monthly</p>	<p>1. Wash inside of all windows.</p> <p>1. Help with inventory. 2. Clean with damp cloth both inside and outside of storage cupboards. 3. Put all storage cabinets in order. 4. Repair equipment. 5. Treat with leather cleaner and preservative all leather articles. 6. Paint hockey and golf balls before storing away. 7. Deflate balls to be stored. 8. Oil wood-sticks and clubs to be stored.</p>	<p>1. Wash inside of all windows. 2. Wash mirrors.</p> <p>1. Help with inventory. 2. Clean cupboards inside and out with damp cloth. 3. Put storage cabinets in order. 4. Help as can with treatment of sports equipment to be stored. 5. Put dry goods away in order.</p>	<p>.....</p> <p>1. Take charge of inventories and order work to be done on equipment and supplies as needed. 2. Place orders for replacements as needed for next season. 3. Get out equipment and supplies needed for next season and see that it is put in order. 4. Order fields and facilities put in order for next season as needed.</p>	<p>1. Monthly cleaning of supply cabinet, typewriter, desks, etc.</p> <p>1. Help other workers as needed.</p>
<p>End of Season</p>	<p>1. Wash outside of all windows for women attendant's rooms as well as own.</p> <p>1. Scrub gym floors thoroughly and let dry 2 or 3 days and apply finisher. 2. Test all stationary apparatus with 3 times its capacity load. 3. Wash all apparatus in soap suds. 4. Shake talcum powder inside of all ball bladders. 5. Treat all leather goods with preservative. 6. Rub oil into all wooden clubs once a day for 3 days. 7. Give all rooms complete housecleaning.</p>	<p>1. Clean shower heads. 2. Wash all lockers inside and out with disinfectant. 3. Send shower curtains to laundry.</p> <p>1. Have all window curtains, cot covers, blankets, etc., cleaned, moth proofed, and stored. 2. Give all rooms complete house cleaning.</p>	<p>1. Place orders for all repairs to be done now.</p>	<p>1. Have pianos tuned. 2. Clean telephone mouthpieces.</p>
<p>Between Terms</p>	<p>1. Wash outside of all windows for women attendant's rooms as well as own.</p>	<p>1. Clean shower heads. 2. Wash all lockers inside and out with disinfectant. 3. Send shower curtains to laundry.</p>	<p>1. Place orders for all repairs to be done now.</p>	<p>1. Have pianos tuned. 2. Clean telephone mouthpieces.</p>
<p>Summer Vacation</p>	<p>1. Wash outside of all windows for women attendant's rooms as well as own.</p>	<p>1. Clean shower heads. 2. Wash all lockers inside and out with disinfectant. 3. Send shower curtains to laundry.</p>	<p>1. Place orders for all repairs to be done now.</p>	<p>1. Have pianos tuned. 2. Clean telephone mouthpieces.</p>

CHAPTER VIII
THE PROTECTION PROGRAM

"A sound mind in a sound body is a short but full description of a happy state in this world; he that has these, two has little more to wish for; and he that wants either of them, will be but little the better for anything else."

—LOCKE

THE NEED FOR A PROTECTION PROGRAM

MUCH OF THE enjoyment of a life fully lived comes from health that is unobtrusive in its effectiveness. How few people really experience a physically efficient life!

Many Defects of Children.—To the high percentage of tonsillar and nervous difficulties and defects of speech, vision, and hearing found among school children are added heart defects, malnutrition, and tuberculosis, to mention from a long list of maladies only the three which claim the largest number of victims.

Recent years have seen a great increase in heart defects in children. The widespread lack of proper food and medical care accompanied by anxiety in the home which has followed in the wake of the depression has taken a serious toll of child health. Recent tests of thousands of high school children reveal a thirty per cent active reaction to the tuberculin test.¹ All these things place increased responsibility upon the physical education teacher who not only must give children their *physical* education but must at the same time protect them in their physical disabilities.

Defective Hygiene.—The statistics of those physical education departments that interest themselves in the hygienic living of their students show, on the whole, either an ignorance of the tenets of healthful living or a disinterestedness which is equally effective in producing bad results. Figure 30 shows a four-year record of the major hygienic difficulties affecting over 25 per cent of college freshmen women. Those items claiming each less than 25 per cent make a long list.

¹ James N. Rule, "Health and Physical Education Faces the Future," *Journal of Health and Physical Education*, June, 1935, p. 54.

A report for 1935-1936² gives the following disturbances as the eleven most frequent among a group of over a thousand high school girls. Listed in the order of frequency they are as follows:

- | | | |
|--------------------|-------------------------|-----------------------|
| 1. Colds | 5. Headaches | 9. Indigestion |
| 2. Defective sight | 6. Underweight | 10. Defective hearing |
| 3. Defective teeth | 7. Overweight | 11. Constipation |
| 4. Nervousness | 8. Painful menstruation | |

THE REQUIREMENT OF AN EXAMINATION

The Children's Charter pledges "for every child health protection from birth through adolescence, including: periodical health examinations and, where needed, care of specialists and hospital treatment;

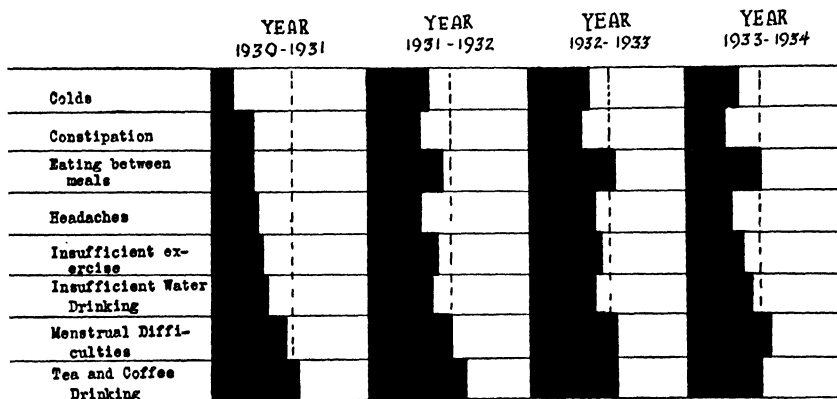


FIG. 30.—Major health problems of college freshmen women. Dotted line represents 50% mark. (Statistics from physical examination records, University of Nebraska.)

regular dental examinations and care of the teeth; protective and preventive measures against communicable disease; the insuring of pure food, pure milk, and pure water.”³ To fulfill this pledge the schools must give physical examinations, after which, repairs, corrections, and remodeling of life plans should be suggested as needed to give the child the best chance possible for a physically efficient life.

The examination program should be no mere routine procedure but a vital experience. It should be so organized and administered that each and every child approaches it eagerly.

² Report of Mary R. Wheeler, Director of Physical Education for Girls, Proviso Township High School, Maywood, Illinois.

³ White House Conference on Child Health and Protection, *White House Conference 1930*, The Century Company, New York, 1931, p. 46.

Trends in the Requirement of Examinations.—The national survey of secondary education reported that out of 460 schools investigated the following conditions exist:

- 48+ % require a health examination once during each school year.
- 27+ % require a health examination only upon entrance to the school.
- 13+ % require a health examination twice a year.
- 3.7% require a health examination every two years.
- 2.6% require a health examination only before entering competition.⁴

A study of 77 junior high schools of New York State in 1933 revealed that 96 per cent give a physical examination to each pupil each year.⁵

Types of Examinations Necessary.—Defects and physical condition should be ascertained before students are assigned to their physical education work. Two examinations, such as are given in the better schools, are necessary to procure adequate information: one examination to be given by a physician to determine the presence or absence of disease and organic and functional disturbances and the other to be given by a trained physical educator to determine body mechanics. These two examinations should be supplemented by tests of physical capacity and fitness.

Physical Education's Dependence Upon Examination.—From these examinations will arise various groupings of students without which the physical education program cannot be built to meet adequately the needs of the child. These examinations will sort out (1) those who may safely venture into any form of activity, (2) those who may attempt an average routine, (3) those who must be watched and checked as they become too enthusiastic about activity, (4) those who may exercise only mildly but who need body education, (5) those who may exercise actively but who need corrective measures for re-education of the body, and (6) those who must be so safeguarded that they are practically on an invalid classification.

THE MEDICAL EXAMINATION

Recommended Content.—A study of the medical examination blanks used by those schools that support strong health and physical

⁴ Adapted from P. Roy Brammell, *Health Work and Physical Education*, *Bulletin* No. 17, *Monograph* No. 28, *Department of Interior*, Office of Education, Washington, 1932, p. 27.

⁵ Orlie M. Clem and A. R. Calhoun, "Organizing Junior High Schools to Meet Individual Differences," *Education Administration and Supervision*, November, 1933, pp. 571-77.

education departments shows them to have a uniformity of content although they differ considerably in their form, size, and arrangement of material. The information most commonly covered is as follows:

- | | | |
|----------------------------|------------------------------------|------------------------|
| 1. Abdominal abnormalities | 11. Immunization for diphtheria | 17. Nasal passages |
| 2. Blood condition | 12. Immunization for scarlet fever | 18. Nervous system |
| 3. Body cleanliness | 13. Immunization for smallpox | 19. Nutrition |
| 4. Bones | 14. Immunization for typhoid | 20. Posture |
| 5. Breath | 15. Lungs | 21. Speech defects |
| 6. Feet | 16. Muscles | 22. Skin |
| 7. Glands | | 23. Teeth |
| 8. Hearing | | 24. Tonsils |
| 9. Heart | | 25. Tuberculin test |
| 10. Height | | 26. Vision |
| | | 27. Wearing of glasses |
| | | 28. Weight |

Additional Items for Girls.—Examination cards to be used for girls who have reached puberty should contain space for a record of menstrual history and condition covering regularity, length of period, length of interval between periods, character of flow, and history of discomfort.

The Form of Examination Cards.—Figures 31, 32 and 33 show samples of cards in use in public school departments which have well organized school health units. Figures 34 and 35 show a good example of a card in use for college women. The other extreme (the form for minimum content) is represented by the name sheet outline below as used in the small school that cannot afford individual forms and also must (or at least does) content itself with a so-called "health examination" such as is given by the school room teacher.

Physical Examination Records

Names	Vision	Hearing	Nose	Throat	Posture	Height	Weight	Remarks

An accumulative record card covering the twelve grades is recommended for the following reasons:

- (a) All records will be easily accessible.
- (b) If the card is used periodically and not just filed and forgotten then real assistance and guidance will be possible for each student.
- (c) Valid and authentic information on student progress is readily available and not dependent on memory or judgment alone.

- (d) In case of the transfer of a student from one school to another, an educational and economic value is realized when a duplicate of such a comprehensive record can be submitted.⁶

The School Without an Examining Physician.—It is frequently difficult for the small school to meet educational needs in physi-

HISTORY				ACCOMPLISHMENTS												
Have You Had	Date	Int.	H.S.	Grade	7B	7A	8B	8A	9B	9A	10B	10A	11B	11A	12B	12A
Miscellaneous				Ind. Sports												
Mumps				Golf												
Whooping Cough				Bowling												
Chicken Pox				Archery												
Scarlet Fever				Tennis												
Diphtheria				Group Sports												
Tuberculosis																
Heart Trouble																
Rheumatism																
Tonsillitis																
Sinusitis				Health Inst.												
What Operations				Swimming												
				E. C. L. S.												
What Accidents				Dancing												
				Orthopedics												
Do You Have				Open Air												
Sore Throat				Rest												
Colds				Nutrition												
Swollen Glands				Walking												
Coughs																
Constipation																
Headache																
Karache																
					ASSIGNMENTS											
Eyestrain				Grade	7B	7A	8B	8A	9B	9A	10B	10A	11B	11A	12B	12A
Skin Infection				Ind. Sports												
Pain—Location																
Fatigue																
Hernia																
Hemosa																
				Group Sports												
Live at Home																
Extra School Activities																
House Work																
Other Work				Health Inst.												
				Swimming												
Do You Like				Dancing												
Music				Orthopedics												
Dancing				Open Air												
Tennis				Rest												
Skating				Nutrition												
Golf				Walking												
Bowling					PARTICIPATION IN SPORTS											
Archery				1st Team												
Swimming				Reserves												
Riding				House Team												
Basketball				Letters or Awards												
Hockey																
Clubs				Office Held												

FIG. 31.—Front view of the physical examination form used in the public schools of Detroit. (Reproduced by courtesy of Mr. Vaughn Blanchard, Supervisor of Health and Physical Education.)

⁶ State of Delaware, *Course of Study for Junior and Senior High School Physical and Health Education*, Part III, Department of Instruction, 1934, p. 181.

Wichita Public Schools
 Department of Health and Physical Education
 Medical Examination Card

Name (Ink) _____													1
Place of Birth (Ink) _____ Date of Birth (Ink) _____													2
Address (Pencil) _____													3
Family Doctors _____													4
_____													5

History of Rheum.	"O" Denotes No Defects "V" Denotes Defects	T. B. in Family?		Typhoid Shoes?		Toxin Anti-Toxin?		Scarlet Fever?		Smallpox Vaccination?				
		Date	Date	Date	Date	Date	Date	Date	Date	Date	Date			
(All in Ink)	SCHOOL	K	1	2	3	4	5	6	7	8	9	10	11	12
Height														
Weight														
Vision	R													
	L													
Wears Glasses?														
Skin														
Headaches?														
Hearing	R													
	L													
Speech														
Tonsils and Adenoids														
Glandular														
Lungs														
Heart														
Abdomen														
Spine														
Feet														
Eligible for Regular Gym														
Eligible for Swimming														
Eligible for Special Gym														
Referred to Health Ed.														
Teeth		+	+	+	+	+	+	+	+	+	+	+	+	+

FIG. 33.—Front view of the medical examination form used in the public schools of Wichita. The rear view of the card is not shown since almost the entire space is reserved for space for remarks by the examining physicians and the physical education staff. (Reproduced by courtesy of Mr. Strong Hinman, Supervisor of Health and Physical Education.)

MEDICAL EXAM.

Women STATE UNIVERSITY OF IOWA

Name _____ Date _____ Age _____ Year _____
 Iowa City Address _____ Health Grade _____ Examiner _____
 Weight: over _____ under _____ average _____ Vaccination: Scar: _____ Date _____
 Skin: Normal _____ dry _____ acne _____ Mucous membranes: pale _____ pink _____
 Teeth: _____ Tongue: clean _____ coated _____
 Eyes: Conjunctiva _____ pupils _____ Symptoms _____
 Vision: O.D. _____ O.S. _____ Corrected: O.D. _____ O.S. _____
 Ears: Hearing—normal R _____ L _____ impaired _____ excessive cerumen _____ Drum: normal
 retracted _____ thickened _____ inflamed _____ perforated _____ discharge _____
 Nose: Mucous membrane—normal _____ hypertrophic _____ atrophic _____ Septum _____
 turbinates _____ growths _____ Recommendations _____
 Pharynx: negative _____ pharyngitis _____ Larynx: hoarseness _____ aphonia _____
 Tonsils: small _____ medium _____ large _____ cryptic _____ septic _____ out _____ Recommend _____
 Thyroid: Palpable _____ enlarged _____ Mammæ _____
 Lymph nodes: normal _____ enlarge C _____ Ep. _____ Ax _____ Ing _____ Tender _____
 Lungs: percussion—normal _____ abnormality _____
 auscultation—normal _____ abnormality _____
 Heart: Visible apex beat _____ palpable thrill _____ Size _____ Action _____
 Sounds _____
 Abdomen: Tenderness _____ Tonus _____ Scars _____
 Patellar reflex: Normal _____ exaggerated _____ inhibited _____

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FIG. 34.—Front view of the medical examination form used at the University of Iowa. (Reproduced by courtesy of the Health Service, Women's Division.)

Temperature _____ Hour _____ Blood pressure S/D Lying _____ Sitting _____
 Pulse-rate reclining _____ standing _____ increase _____
 immediately after exercise _____ 1 min. after _____ 2 min. after _____
 Rating _____ Hemoglobin _____
 Urine: Sp. Gr. _____ alb _____ sugar _____ reaction _____ micro _____
 Recommendations _____

RECHECK EXAMINATIONS

Date _____ Examiner _____ Rx carried out _____ History _____ Weight gain _____ loss _____ same _____ Lungs _____ Heart _____ Pulse _____ Bl. pressure _____ Health rating _____ Remarks: _____	Date _____ Examiner _____ Rx carried out _____ History _____ Weight gain _____ loss _____ same _____ Lungs _____ Heart _____ Pulse _____ Bl. pressure _____ Health rating _____ Remarks: _____
--	--

FIG. 35.—Rear view of form shown in Figure 34.

children who wish to enter athletics: this too is exclusive although better than no report at all.

There is much that the school teacher can do without the aid of a physician to ascertain the health condition of pupils and this much all schools should require.⁷

The Responsibility of the Physical Education Teacher Toward Medical Examinations.—The teacher in charge of physical education should assume the following responsibilities toward the medical examinations:

1. To assist the physician and nurse in making health examinations by recording findings, doing simple measurements of height, weight, vision, hearing and posture and recording deviations from the normal for reference to the physician.

2. To cooperate with the nurse in arranging schedules for examinations, notifying pupils and physicians of appointments, arranging appropriate follow-up procedures.

3. To interpret to parents the plans, procedures, and findings of the physician through printed material, letters, interviews, and talks.

4. To base all assignment to physical education activities including participation in competitive sport upon the results of a physician's examination.

5. To assist students to make appropriate personal adjustments and compensations to the findings of the physician and nurse.

6. To conduct a scientific program of individual corrective exercise or restricted physical activity for those students found in need of such.

7. To serve as the health counsellor or on the school health committee rendering service in all matters relating to health conditions in the school.

Because of differences in training, health and physical education teachers cannot perform the same functions as physicians and nurses. They should not be expected to do so. The health and physical education teacher is essentially an educator rather than a diagnostician, hence the following limitations of his work in the school health service should be recognized:

1. *Under no circumstances should the teacher make a diagnosis of any disease or ailment.*

2. *The teacher should give no test or use any instruments to make*

⁷ An excellent guide for this work has been prepared by the Consultant in Hygiene of the United States Office of Education and is distributed in pamphlet form for five cents: James Frederick Rogers, *What Every Teacher Should Know About the Physical Condition of Her Pupils*, No. 68, United States Department of Interior, Washington, 1936. This pamphlet gives full instructions for physical examinations that may be given by school room teachers.

differential diagnosis except in those instances where assistance to a physician or nurse in charge is necessary.

3. *The allocation of students to classes in individual corrective exercise should be done under the supervision of a physician.*

4. *Mass corrective drills or corrective exercise without a differential diagnosis and individual prescription of exercise or therapy are unscientific.⁸*

The Responsibility of the Physical Education Teacher Toward Physicians Not Connected with the School.—One of the difficult problems in physical education work is that of establishing correct relations and understanding with the medical profession. Not that this profession is difficult of approach or understanding but there has grown up in the past, on the part of many doctors, a fear of physical education work for their patients. It is small wonder that many doctors doubt the good judgment of teachers when they see the outcome of interscholastic competition in terms of nerve strain, body injury, and emotional disturbances; the lack of wisdom in throwing young children, immature and undeveloped, into games imitative of college youth; the ill-advised efforts of untrained teachers who, knowing little if anything of the laws of growth and development of children, of kinesiology, of the fundamentals of physiology and hygiene, and of the art of examining and classifying children, throw them into activity, "willy-nilly," leaving it to chance if they are not harmed by their teacher's ignorance. Because of such shortcomings many doctors have come to be skeptical of what physical education can do for children, so that it is frequently necessary to explain to them its aims and objectives, disclaiming the untrained "tradespersons" who cling to the outer fringe of the profession. Physicians, themselves, must at times defend their profession against the work of "quack" doctors.

A little over ten years ago the Division of Physical Education of the public schools of Philadelphia produced a form letter to family physicians, which still stands as an excellent example of an attempt to create an understanding of our work. It is as follows:

INFORMATION AND SUGGESTIONS FOR THE FAMILY PHYSICIAN

The Division of Physical Education is prepared to give special individual instruction to pupils that need it. This work, if it is to be successful, needs the cooperation of the family physician. Your attention is, therefore, directed to the following:

⁸ D. Oberteuffer, *Health and Physical Education Series*, Volume III, Ohio Department of Education, Columbus, 1932, pp. 26-27.

1. A state law makes physical education obligatory for all pupils attending school. Practically all pupils take part in regular physical education work with great physical benefit.

2. So far as this regular obligatory work is concerned your attention is directed to the great difference between non-competitive and competitive work. In non-competitive work excessive nervous stimulation is entirely lacking. Its general effect, therefore, is mildly stimulating.

3. A few pupils, however, because of structural defects or functional disturbances, should not take part in regular class work, but should have special work suited to their individual needs until such time as they may be able to resume the regular work.

4. To these pupils we want to give the special work that you prescribe. Our teachers of physical education are competent to give the kind of work desired by a physician.

5. On the reverse side of this card you will find groups of ailments that call for special individual work. Please indicate by check mark or by other entry the type of work that for the current semi-annual school term would be most beneficial to the pupil named on the card.

6. There may also be a very few unfortunates who for the time should be forbidden to take even the mildest form of exercise. A new card from the attending physician may be required if apparent change seems to make this desirable. A card, however, will be good for at least one month.⁹

The Texas State Department of Education has ruled: "Schools are urged not to accept, without sufficient investigation, certificates of excuse issued upon the request of parents or pupils by the family physician or other persons who might be asked to issue excuses without a thorough medical examination. Unfortunately, many excuses are granted merely because the pupil or parents do not understand the nature of and purpose of the physical education program."¹⁰

Interpretation of Information from Physicians.—The terminology used by physicians on examination blanks is not commonly familiar to laymen but the teacher who prescribes exercise must know the correct interpretation of the information which the doctor reports. The items most frequently encountered which require interpretation by the physical education teacher are given below.

Blood Count.—Normal for red corpuscles: women, 4,500,000 per c.mm.; men, 5,000,000; and children, 5,500,000. Normal for

⁹ William A. Stecher, "Individual Exercises," *American Physical Education Review*, March, 1925, p. 156.

¹⁰ Texas Public Schools, *Standards and Activities of the Division of Supervision*, State Department of Public Instruction, No. 334, 1933-1934, p. 80.

white corpuscles (leucocytes): men and women, 5000–7000 per c.mm., and children, 5000–9000.

Blood Pressure.—The average systolic pressure range for high school and college age is 105 to 125. A report above 125 calls for a kidney examination; below, for a program of moderate exercise. An excellent reading for ages 15 to 20 is 118. A diastolic pressure of 50 to 80 mm. Hg is normal for young women: a record of 95 indicates grave disorder¹¹ and demands no assignment to activity except upon the physician's advice.

Hearing.—A record of 20/20 is normal, meaning the person tested heard the whisper or acoumeter at the distance of 20 feet. A record of 15/20 means that the whisper or acoumeter which should have been heard at 20 feet was not heard until within a range of 15 feet.¹²

Heart.—The normal heart rate is 72 beats a minute with an increase to 85 or 100 after exercise. A systolic murmur, commonly found in children and young adults, is "not necessarily an alarming sign . . . much of the trouble is a derangement of the nervous system and not of the heart musculature. . . . Breathlessness is the best observable sign of failing cardiac reserve."¹³ Reports of "aortic regurgitation," "mitral stenosis," "double lesions" refer to conditions of such a nature that the child should be placed under the care of private physicians. Children who are heart cases must be freed from worry about recitations and must be kept free from excitement.¹⁴

Physicians should report concerning the heart condition in terms of heart ability and not in terms of physical activities. When a report merely says a student must not play hockey or basketball the teacher has learned practically nothing to assist her in protective work with that student for it is quite possible that the examining physician is judging hockey and basketball by the games he has played or has seen played, which may have little relation to the games in which this student might participate. The report should state, instead, what the heart can stand in terms of ordinary exercise, strenuous exercise, or highly competitive exercise involving emotional strain. The physician is the judge of the

¹¹ Whitelaw Reid Morrison and Lawrence B. Chenoweth, *Normal and Elementary Physical Diagnosis*, Lea and Febiger, Philadelphia, 1932, p. 265.

¹² *Ibid.*, pp. 213–15.

¹³ Normal Cole, M.D., "Exercise and the Normal Heart," *American Physical Education Review*, December, 1922, p. 477.

¹⁴ Sven Lokrantz, "Corrective Physical Education Practiced in Los Angeles City Schools," *Journal of Health and Physical Education*, March, 1930, p. 6.

heart condition: the physical education teacher is the judge of the classification of the exercise.

Menstrual Functioning.—Reports of dysmenorrhea (painful menstruation) should be given careful consideration. If the condition is due to pelvic congestion and poor abdominal tone, as is frequently the case, the girl should be assigned to a special class where she will be taught to do exercises to relieve the congestion and to strengthen abdominal walls.¹⁵

Temperature.—A reading of 98.6° is normal for the average person: 97 to 99.5° is a normal range for children.

Thyroid Functioning.—Both overactive and underactive thyroid functioning call for restricted activity since both are accompanied by a susceptibility to quick fatigue. The exaggerated emotional reactions and restlessness of the overactive condition are a marked contrast to the mental and physical sluggishness of the underactive type.

Tuberculin Test.—If the result of the Mantoux skin test is reported as positive it means that the person tested has been infected with tuberculosis even though the disease may be latent at the present. No student with a record of tuberculosis or showing a positive reaction to the Mantoux skin test should be allowed to enter competitive athletics or to take part in any form of strenuous exercise. In addition to this no student should be permitted to enter strenuous athletics of any form without first being given a tuberculin test.¹⁶ Far too many previously unsuspected children are discovered through tests to be in the danger zone to permit a guess at health conditions where strenuous competitive athletics are concerned.

Visual Acuity.—A report from a physician of 20/20 means that the student was able to read the line on the eye chart which she was supposed to read. This does not, however, conclusively prove normal vision. A record of 20/30, for example, means that she could read, only at a distance of 20 feet, the line she should be able to read at 30 feet. Although not an accurate test, such a record is an indication of impaired vision and the student should be referred to an oculist for a thorough examination.

Classifying Pupils from the Medical Examination.—Students should be grouped according to the physicians findings into four groups for physical education as follows:

¹⁵ The Mosher exercise is the one in most common use for this correction. See Lillian Drew, *Individual Gymnastics*, Lea and Febiger, Philadelphia, 1923, p. 241.

¹⁶ Lee H. Ferguson, M.D., "Tuberculosis and Physical Activity," *Journal of Health and Physical Education*, October, 1934, p. 46.

1. Those who may take any activity offered.
2. Those who may take any activity offered but with certain minor restrictions.
3. Those who may take only restricted activity.
4. Those who may not even take restricted activity and therefore must be excused from all class work.

After the pupils are thus classified by the medical examination they should in addition be classified by the physical examination tests which the physical education department itself gives.

THE PHYSICAL EXAMINATION

Minimum Content.—The examination which the physical education department gives is concerned chiefly with body mechanics. A special committee of the American Physical Education Association ¹⁷ under the chairmanship of Dr. Gertrude Moulton of Oberlin College recommends the following as a minimum requirement for physical examinations for girls and women:

I. HISTORY

1. Date of birth.
2. Disabling injuries such as sprains, fractures, dislocations, etc., and illnesses or operations within the last two years.
3. Menstrual history:
 - Interval—Reg., days Irreg., days duration, days
 - Pain—Duration, hrs. days Amount: none, slight, moderate, severe.
 - Region: abdomen, back, legs, other.
 - Other symptoms: headache, depression, lassitude, fatigue, nausea, constipation.
 - Treatment—Bed: days hrs. Heat, Medicine, Exercise.
4. Elimination—Daily? Yes No Feces: hard, soft.
Laxatives: frequently, seldom, never.

II. EXAMINATION

Age Weight Height, standing

Body type: stocky, average slender.

Lung capacity (breathing capacity):

Posture: profile picture, taken with a plumb line in the picture.

Inspection:

Antero-posterior (taken from side).

Bancroft straight-line test for weight distribution.

Weight: back, normal, forward.

Head: erect, forward—slight, medium, marked.

Shoulders: relaxed, normal, rigid, forward, high.

Trunk: back, erect, forward.

Spine: Dorsal curve marked, normal, slight.

Lumbar curve marked, normal, flat.

¹⁷ Committee of American Physical Education Association, "Physical Examinations for Girls and Women," *Research Quarterly* of the A.P.E.A., October, 1934, pp. 16-17.

- Chest: exaggeratedly high, normal, low.
 Abdomen: muscle tone—firm, relaxed.
 Knees: hyper extended, normal flexed.
 Lateral (taken from back).
 Trunk displacement laterally: L, R, none, slight, marked.
 Shoulder Girdle: R, L, shoulder: high, low
 R, L, twisted back
 Scapulae: Prominence of vertebral borders: slight, moderate, marked.
 Prominence of inferior angle: slight, moderate, marked.
 Evidences of scoliosis: slight, moderate, marked.
 Flexibility antero-posterior: good, fair, poor.
 Pain: Dorsal, Lumbar, Sacroiliac.
 Feet: Symptoms of weakness: pain, fatigue, burning.
 Walking posture, toes straight, or out-toeing: slight, moderate, marked.
 Longitudinal Arch: Pronation.
 Flexibility: poor, medium, good.
 Anterior Arch: Callus—none, medium, marked.
 Toe extensors: normal, shortened.
 Signs of improper shoes and habit:
 Corns, callus, deviations from straight inside line (slight, marked),
 bunion, ingrowing nails, hammer toe, overlapping toes, compressed
 toes, shortened tendon Achilles.

Interpretation of the four main items of the examination follow.

Height and Weight.—Relative measures of height and weight indicate only growth, yet normal growth is important and it is well to measure all pupils for a record of this condition. For small children the Wood-Phelan Growth Chart is preferred.¹⁸ For older children, body type, age, and sex should be considered with height and weight. A chart covering all these items for school ages based on the Baldwin tables has been devised by the Division of Physical and Health Education of the public schools of Philadelphia.¹⁹ Other tables with accompanying figures for seven, ten, and fifteen per cent over- and underweight for each average weight indicated are available as prepared by the American

¹⁸ Copies of this chart, prepared by Thomas D. Wood, M.D., and Anette M. Phelan, may be procured from the Bureau of Publications, Teachers College, Columbia University, New York. It in no way indicates what a child should weigh. Each child should have its own chart. On it record its height and weight each month and compare it with its previous records.

¹⁹ Merely as a courtesy applicants may procure copies for fourteen cents a copy from the Department of Business, Board of Education: the price is subject to change as printing costs vary. This chart is unique in that it is prepared so that it may be used as a height-measuring scale. When properly hung with the forty-inch line at the bottom of the card measuring exactly forty inches above the standing platform, all the other measures on the chart come at their proper level. As the child stands in front of the chart and the indicator rod is placed on top of his head at right angles to the wall and touching the chart, not only is his height indicated but on the same line on the chart is also indicated his proper weight for his type—slender, average or stocky. The range of pounds within which his weight may fall without being over or under the correct average is also indicated.

Child Health Association.²⁰ Recent studies of ten thousand children and young adults have brought out width-weight tables which have been made from computations of relative measures of width of pelvic crest, height, age, and weight.²¹ The width of the pelvis determines the type of bony structure and bony structure is an important item in the consideration of nutritional status.

Nutritional Index.—McCloy of Iowa says it is "desirable to study the amount and condition of fat and the amount and condition of muscle" as well as to know height, build, and age since it is quite possible for a person to be underweight and well nourished or to be overweight and undernourished.²² If the medical examination does not include the ACH (Arm Chest Hip) Index for nutritional status it would be well for the physical education department to learn how to use the subcutaneous tissue calipers which have been devised by the American Child Health Association to measure "the relative amount of fat just under the skin."²³ It is equally important to learn how to interpret the findings. This investigation should be carried on only by those trained in the techniques. All students found to have a low nutritional index or to be more than fifteen per cent off weight should be referred for immediate attention to a specialist on nutrition.

Breathing Capacity.—A record of breathing capacity ten per cent below the standard²⁴ is a signal for an investigation of physical condition; a reading of as much as fifteen per cent below the standard "almost certainly means that the student is in poor condition and should seek competent medical advice"; a record above the standard has "little positive significance."²⁵

²⁰ The American Public Health Association is the present distributor of material formerly handled by the American Child Health Association.

²¹ Helen B. Pryor, M.D., *Width-Weight Tables*, Stanford University Press, 1936. These tables are printed in four varieties: (1) for boys 1 to 5 years of age, (2) for girls 1 to 5 years of age, (3) for girls 6 to 16 years of age, (4) for men and women 17 to 24 years of age. A range of seven normal weights is given for each height and age. These tables may be procured from Stanford University Press at 60 cents each or less on orders of two or more.

²² C. H. McCloy, "Anthropometry in the Service of the Individual," *Journal of Health and Physical Education*, September, 1934, p. 8.

²³ *Ibid.*

²⁴ Standards of breathing capacity accompany the purchase of spirometers. Standards estimated according to height, weight, and age have been prepared from a study of 2,547 records of 1,539 girls from 11½ to 18 years 5 months of age, all physically able to participate in gymnasium work. These cases were from ten schools in six different states. The standards thus obtained are reported in Helen Garside Kelly, *Individual Differences in Breathing Capacity*, Iowa Child Welfare Research Station, University of Iowa, Iowa City, 1933.

²⁵ McCloy, *op. cit.*, p. 10.

Posture.—Since posture is believed to have a definite relation to physical fitness, it is desirable to compare students with recognized standards. (Fig. 36 and Table IX.) Various posture tests are in use depending upon the type of equipment available. A fair degree of estimation may even be obtained by the vertical line test which is the resort of the teacher who is unprepared to give professional examinations. (See p. 248.)

All students with poor posture should be assigned corrective class work. Figures 37 and 37a show what may be expected from such work.

Grading Posture.—The most reliable method of grading posture objectively is that worked out at Wellesley College.²⁶ Like all other methods of objective grading, it requires a large amount of clerical work and for that reason is not widely used. Although subjective grading is generally looked upon as unreliable,²⁷ Miss Josephine Rathbone of Columbia University speaks thus in its behalf:

To the person who is impressed with the advisability of attempting to treat all types of data by objective, statistical methods, it will seem desirable to have a scheme for grading postures. . . . No scale with as few as four or five categories is at all satisfactory. To the trained teacher of reconstructive physical education, who can trust her own subjective judgment . . . there will be no need for a complicated system of grading. We will recognize this posture as beautiful and unlikely to offer dangers, this one as weak and sure to lead to complications, and this one as fair with uncertain prognosis. . . . Nothing is more variable than people's postures, and there is a wide range of commendable as well as deplorable ones.²⁸

The most commonly used basis of grading is that employing the four classifications A, B, C, and D as listed in Table IX.

Foot Examination.—Since the most common defects of the foot are amenable to correction by exercise it is advisable to give a thorough examination. For the fleshy foot and the strong low arch, footprints alone are deceiving so that this method of examination must be supplemented by careful inspection and tests of function. Recommended lighting arrangements for the silhouettegraph have been im-

²⁶ Charlotte G. MacEwan and Eugene C. Howe, "An Objective Method of Grading Posture," *Research Quarterly* of the A.P.E.A., October, 1932, pp. 114-57.

²⁷ W. H. Mustane, "Tests and Measurements in Physical Education," *Supplement to the Research Quarterly* of the A.P.E.A., March, 1935, p. 11.

²⁸ *Corrective Physical Education*, W. B. Saunders Company, Philadelphia, 1934, pp. 244-45.

POSTURE STANDARDS

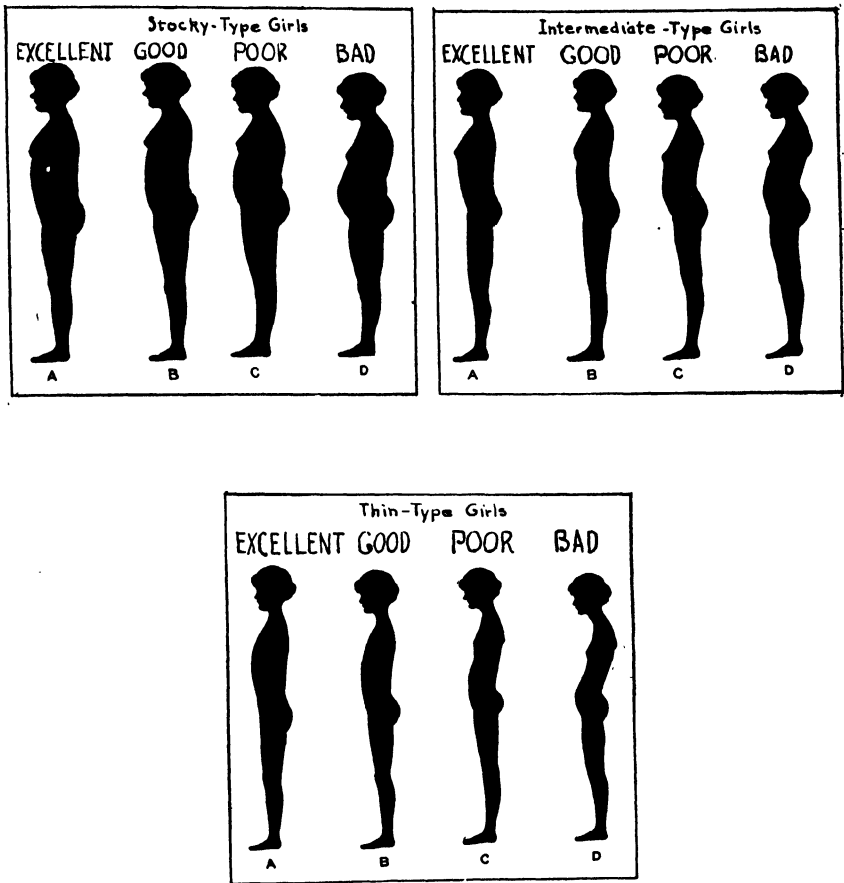


FIG. 36.—Posture standards for girls. (Arranged from charts on pages 7, 9, and 11 of Armin Klein, M.D. and Leah Thomas, *Posture Exercises*, Publication No. 165, Children's Bureau, United States Department of Labor, Government Printing Office, Washington, 1926. Reproduced by courtesy of The Children's Bureau.)

proved recently so that it is now possible to procure distinct foot outlines of value to the examiner.²⁹

The presence of corns or bunions indicates ill-fitting shoes. Calluses under the base of the toes indicate a lowering of the transverse

²⁹ C. H. Hubbard, "The Silhouettegraph—Its Contribution to the Study of Posture and Body Mechanics," *Journal of Health and Physical Education*, March, 1934, pp. 49, 60.

TABLE IX

THE FOUR CLASSIFICATIONS OF POSTURE*

	A Excellent Posture	B Good Posture	C Poor Posture	D Bad Posture
Head	Up and in (balanced above shoulders, hips, and ankles)	Slightly forward	Forward	Markedly forward
Chest	Up (breast bone part of body farthest forward)	Slightly lowered	Flat	Depressed (sunken)
Abdomen	Lower abdomen in and flat	Lower abdomen in but not flat	Relaxed (part of body farthest forward)	Completely relaxed and protuberant
Back	Curves normal	Curves slightly increased	Curves exaggerated	Curves exaggerated

*Adapted from Armin Klein, M.D. and Leah C. Thomas, *Posture Exercises*, Publication No. 165, The Children's Bureau, U. S. Department of Labor, 1926. p. 7.

arch due to ill-fitting shoes, incorrect weight-bearing, or poor musculature of the foot. A curved heel line showing from the rear, a history of pains up the leg and knees unaccounted for otherwise, and an undue prominence of the inner ankle bone (malleolus) indicate a lowering of the longitudinal arch (weak foot). These conditions call for properly fitted shoes and corrective exercise.

The Physical Examination Card.—At the University of Nebraska two different examination forms are used for the women: one for an appraisal of all students who have not been assigned restricted work by the Health Service and the other for the more detailed examination which is given to all who have been assigned such work and to those additional students who have been "screened out," by the appraisal, for additional attention. The silhouettegraph is used only for this second examination. Figures 38 and 39 show the form of appraisal card used.

Examinations in the Small School.—Lack of funds does not deter the teacher of ingenuity: she prints her own examination blank by hand and has her students assist in making copies; she uses a prepared wall space for a stadiometer, a window pole for a posture gauge, her own two eyes, reinforced by her intelligence, for her inspection machinery; and she prevails upon the village health department or grocery store to permit her to bring her pupils to their scales. For weighing on scales away from the school, the removal of shoes and outer wraps is

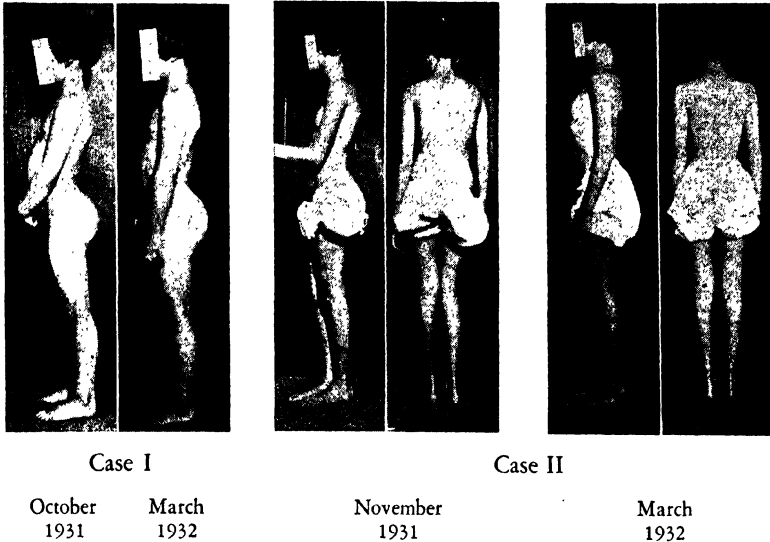


FIG. 37.—Improvement shown in two cases after four to five months of posture work. (Reproduced from Josephine L. Rathbone, "Representative Cases Needing Correction of Posture Habits and Improvement in Muscle Tone," *Journal of Health and Physical Education*, March, 1933, pp. 38 and 40, by courtesy of author and editor.)

adequate since other clothing weighs but little these days: the important thing is to procure later comparative weight figures from the same scales with the same clothing conditions.

The Ohio³⁰ and Washington State Departments of Education³¹ recommend that all schools procure, as a minimum examination, information as to height, actual weight, normal weight, and posture.

³⁰ D. Oberteuffer, *op. cit.*, p. 30.

³¹ State of Washington, *Health and Physical Education, A Program for High School Boys and Girls*, State Department of Education, Olympia, 1934, p. 9.

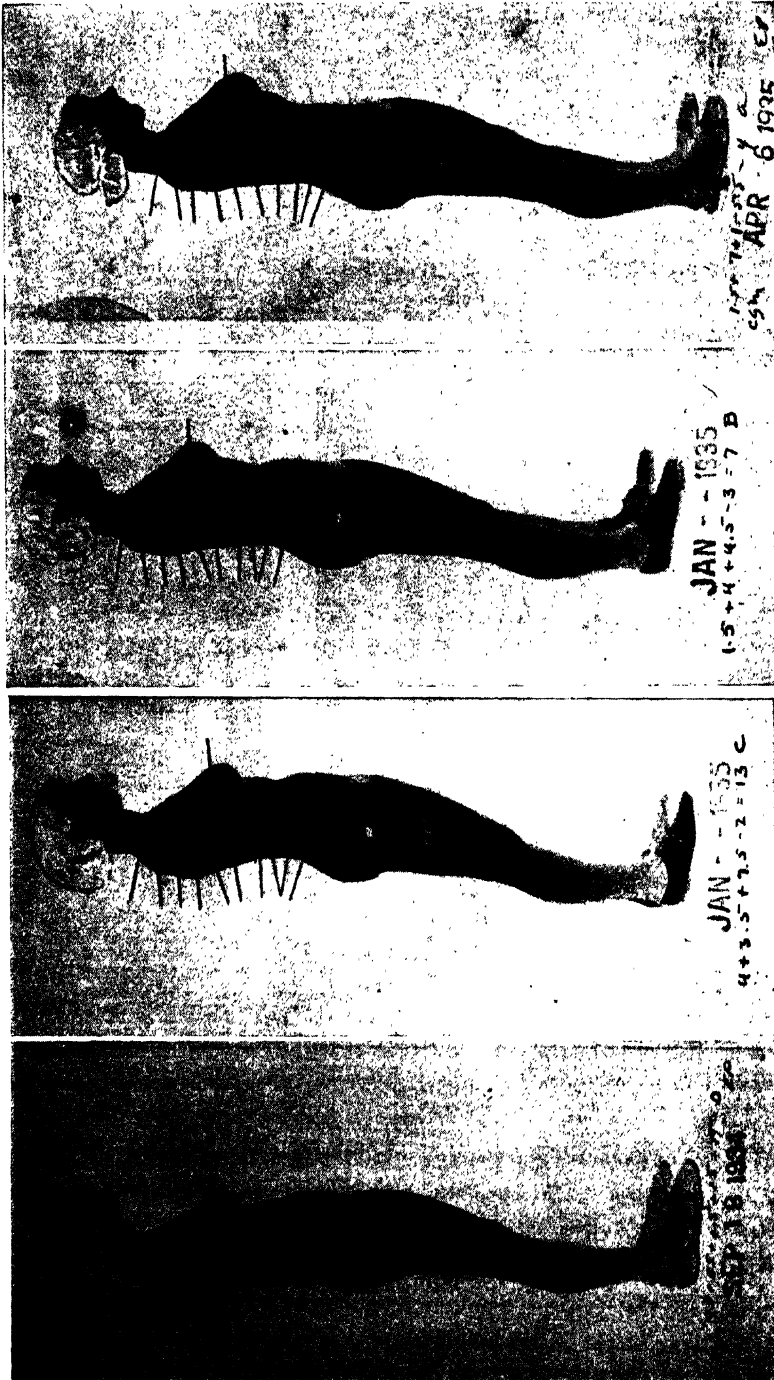


FIG. 37a.—An example of posture improvement over a period of seven months. (Reproduced from Charlotte G. MacEwan, Elizabeth Powell, and Eugene C. Howe, "An Objective Method of Grading Posture," Physiotherapy Review, May, 1935, by Courtesy of authors and editor.)

APPRAISAL CARD			THE UNIVERSITY OF NEBRASKA			Health Grade.....		
			Department of Physical Education for Women			Reason.....		
NAME			CLASS			Corrective Work Advised—Yes..... No.....		
Last			First			Middle		
Date						PHYSICAL INSPECTION		
Age (nearest birthday)						Check (✓) each item not correct		
Height (metric)						Posture		
Weight						Head		
Correct weight						Shoulders—Antero-posterior		
% + or - (Record +, -, or o. k.)						Lateral		
Breathing Capacity						Abdomen		
15% or more under (Record - or o. k.)						Back—Kyphosis		
Grip—R						Lordsis		
L						Scoliosis		
Chest Circumference—(xiphoid)						Hips		
(corrected)						Knees		
Muscle Girth—Upper arm						Weight Distribution		
Fore arm						Feet—Blisters, callouses, corns,		
Thigh						bunions, inflammation		
Calf						Long Arch—R		
Breath—Hips—(bi-iliac)						L		
(bi-iliac corrected)						Trans. Arch—R		
(bi-trochanteric)						L		
Knee						Inner Border—R		
Skin—Chest front						L		
Abdomen						Pronation—R		
Supra-iliac						L		
Chest-back						Nutritional Index		
NOTE—Use A C H tables to determine correct weight. Use Always chart to determine % + or -						NOTE—Use star above instead of check to indicate corrective work is advised after completion of computations.		

FIG. 38.—Front view of appraisal card used at the University of Nebraska.

NAME			Follow Up Case (circle) Yes—No.								
Last			First			Middle					
HYGIENE SCORE						RECREATIONAL SKILLS					
						Check (✓) activities you can do.					
Date						Date					
1. PHYSICAL INDICATIONS						4. INFECTIONS					
Total score possible—30 points						Total score possible—15 points					
a. Weight—5 points if within normal range.						Infections—15 points if free from known sources of infection. Deduct 5 points for each of the following diseased tonsils; carious teeth; infected appendix.					
b. Breathing capacity—5 points if within normal range.						5. ORGANIC FUNCTIONINGS					
c. Posture—10 points if no items checked, deduct 1 point for each check.						Total score possible—25 points					
d. Feet—5 points if no items checked, deduct ½ point for each check.						a. Skin—5 points for cleanness of skin.					
e. Nutritional Index—5 points if within normal range.						b. Elimination—10 points if normal; 5 points if occasional constipation, 0 points if habitual constipation or habitual use of laxatives.					
2. EXERCISE						c. Menstruation—10 points if normal, 5 points if habitual discomfort at period; 0 points if habitually incapacitated at period.					
Total score possible—10 points						6. HABITS					
Physical Recreation—10 points if you usually take 1 hour daily; 5 points if only an average of 3 hours a week; 0 points if less.						Total score possible—10 points					
3. MENTAL ATTITUDE						Habit—10 points if free from habits likely to lower efficiency. Deduct 2 points for each of the following: smoking if under 25 years of age; sleeping on an average of less than 8 hours per day; irregular meals; no recreational interests; habitual use of drugs.					
Mental attitude—10 points if you have a cheerful, optimistic attitude. Deduct 2 from 10 for each of the following: lack of self confidence; failure to get on with people; failure to do something constructive about your difficulties; tendency to present an alibi for failure; tendency to be bored or malcontent.						TOTAL					
						1. Dancing					
						Ballroom					
						Clog					
						Folk					
						Modern					
						Tap					
						2. Individual Sports					
						Archery					
						Bowling					
						Diving					
						Golf					
						Ping Pong					
						Riding					
						Skiing—Ice					
						Roller					
						Swimming					
						Tennis					
						3. Team Sports					
						Baseball					
						Basketball					
						Hockey					
						Soccer					
						Volley Ball					

FIG. 39.—Rear view of appraisal card shown in Figure 38. (Hygiene Score suggested by Ruth Glassow, Fundamentals in Physical Education, Lea and Febiger, Philadelphia, 1932, p. 135: part 3, Mental Attitude, reproduced from the original.)

Organization for Examinations.—In a school where there are two physical education teachers available for each class period the organization for the examination is a simple matter compared to the problem which confronts the lone teacher who must at the same time both give examinations and conduct class activities. A splendid organization plan for the two teacher situation is in effect at the New Trier Township High School in suburban Chicago.³² By this plan all freshmen and sophomore girls (600) are given a silhouettegram during the first two weeks and all receive a complete posture examination by inspection and a conference during the following two weeks. While one teacher examines fifteen students each class period, the other leads the remainder of the class in some activity. After the four-week examination period, the previously organized class is divided into two sections: one teacher takes charge of those who have been assigned restricted or corrective work and the other teaches the regular activity to the remaining group.³³

The Small School Organization.—In the small school the one physical education teacher should train a corps of student assistants from the pupils of last year's classes: one or two for each class hour to lead in games and one or two others to help with the examining routine while she examines a few pupils at a time.

The College Organization.—At the University of Nebraska those women students who are assigned restricted work by the Health Service, as a result of the findings of their medical examination, are registered for individual gymnastic classes and are not given appointments for the appraisal examination which is given to all other women students. This relieves these special cases of the need of reporting with large groups for another examination. After the regular class work of the department has started they are then given their special physical examination and silhouettegram within their own class period, thus easing considerably their opening week's requirements.

All other students taking work in the department are examined during the opening weeks at the rate of forty an hour for six hours a day for as many days as are necessary to complete the work. This organi-

³² For full details see Ella Marie Abbott, "The Posture Program at New Trier Township High School," *Journal of Health and Physical Education*, January, 1936, pp. 11-15, 60.

³³ Starting in the year 1937-1938 the students will be scheduled to come from study hall or other classes for their silhouettegram and other tests instead of so many reporting from each gymnasium class as now. By this method they hope to save the time now wasted between classes. (Information from Mrs. Ella M. Abbott, New Trier Township High School, Winnetka, Illinois, December 2, 1936.)

zation requires for each hour four trained examiners, one dressing-room attendant, and eight assistants who are instructors and professional training students. Until these appraisal examinations are completed the motor activities class work does not begin: only the professional training courses are carried on at the same time.

Preliminaries to Examinations.—Every detail of the procedure to be followed by all workers should be recorded in writing. A diagram of the examining space should be made, showing the location of all equipment, supplies and workers, and indicating the passage of the student through the routine. Copies of the procedure and diagram should be posted for all workers and each person should be given a copy of her own particular instructions. The chairman of examinations should be held responsible for the formulation of these copies, the advance preparation of rooms, equipment and supplies, the assignment of the various workers to their particular posts, their instructions concerning the minutest details of their assignments, and the rehearsal of procedures with all workers before the examinations begin. The work once under way the duties of the chairman do not cease, for the work of hours may be ruined by one worker who records information incorrectly or neglects some detail of her assignment: the chairman must give constant supervision to all particulars of the procedure.

The Technique of Examining.—All subjects to be examined should be given opportunities for privacy. If the examination requires undressing, robes should be available for all who desire them. Even though many students may go about the dressing rooms and showers unclothed, of their own volition, the teacher must not organize her work to demand such procedure.

Excellent advice on the giving of examinations is as follows:

A responsibility that is primarily that of the teacher is to see that the whole examination is a pleasant experience for the child, one that he will wish to repeat and thereby make a habit. There should be no evidence of haste. The child should understand, so far as is advisable, what is being done. Emphasis should be placed on the sound conditions found rather than on the defects. The latter should be mentioned only in connection with the correction of them.³⁴

Before attempting to give examinations, the inexperienced teacher should review all techniques in their minutest details. This is equally

³⁴ *A Course of Study in Physical and Health Education for Grades One Through Six*, Department of Education, State of Alabama, Montgomery, 1931, reprinted 1935, p. 150.

good advice for the experienced examiner, also, in event the time of a few months has elapsed since the last experience.³⁵ Brief hints follow:

*Posture.*³⁶

1. Vertical Line Test.³⁷

a. The subject stands in a natural position, looking straight ahead, and with feet together.

b. Hold a window pole at right angles to the floor and close to the side of the person being tested with the pole passing in line with the shin bone and just in front of the outer ankle bone (outer malleolus).

c. Note the parts of the body in line with the pole: in a good posture the line passes through the tip of the shoulder and just in front of the ear.

2. Plumb Line Test.

a. The subject stands as in the vertical line test.

b. Hold a long plumb line so the bob swings freely; drop it from the cartilage projecting over the opening into the ear canal (the tragus).

c. Note the parts of the body in line with the plumb line: in a good posture the line passes through the tip of the shoulder, immediately back of the knee cap, and in front of the outer malleolus.

Feet.

1. The experienced examiner will use inspection methods.
2. The trained but inexperienced examiner will learn to use inspection from experience.
3. The untrained person should not attempt to give foot examinations other than to observe the type of shoes worn, the presence of corns, calluses, and bunions, and to question about function.

Conference.

1. All persons examined should be given a conference on all findings before leaving the examining room: if this is not possible an appointment should be given for a conference at a later date.
2. Group conferences should be announced for future dates on topics covering subjects of common interest to a large number.

³⁵ For full instructions in techniques of examining see the following: Morrison and Chenoweth, *op. cit.*; Lowman, Colestock and Cooper, *Corrective Physical Education for Groups*, copyright, 1928, by A. S. Barnes and Company, Publishers, New York; and C. H. McCloy, *op. cit.*, p. 10.

³⁶ Beyond the inspection of weight distribution and the posture profile, the teacher untrained in the technique of back examination should not venture other than to note for reference to parents if there seems to be abnormalities of the spine. She should not attempt to define the abnormalities.

³⁷ Condensed from Jessie Bancroft, *The Posture of School Children*, The Macmillan Company, New York, 1920, pp. 6-9.

PROTECTIVE MEASURES IN GENERAL

Hygiene of the School Plant.—When the proper authorities fail to look after the hygiene of the school plant the physical education teacher should assume a share of the responsibility in behalf of the best interests of the students. This must be done tactfully with no seeming criticism of the negligence of superior officers. Items in which one should take particular interest are ventilation, lighting, drinking water supply, cleanliness of rooms, sanitary conditions of toilets, proper hand-washing facilities, and waste disposal. Blackboards placed between windows and windows that give cross light must be tolerated until the necessary changes can be made.

For conservation of vision it is urged that schools do away with gray blackboards, small writing with hard chalk, polished furniture, dirty windows, and improperly tinted walls and ceilings, and that a Sight Meter test be used for all lighting.³⁸

Hygiene of the School Program.—In order to organize the school program for the protection of students, Ireland of New Jersey proposes that the schools adjust the following items to meet their best health interests:

- The length of the school day
- The number and length of periods
- The continuity of subjects and activities
- The number, length, and kind of recesses or other periods provided for rest and relaxation
- The marking or grading schemes in use
- The relative stress placed upon term examinations as the basis of promotion
- The number of study periods; the environmental conditions; and the kind of supervision
- The amount and kind of home work and the importance attached to it
- The social and club activities in kind and amount
- The emphasis attached to attendance contests
- The policy followed with respect to rewards
- The assistance given individual pupils in the election of courses or subjects
- The opportunities provided for self-expression in creative work.³⁹

³⁸ Allen Ireland, M.D., "Essentials of the School Health Program," *Journal of Health and Physical Education*, September, 1934, p. 16.

³⁹ *Ibid.*

He further suggests that the school draw up a printed form for all teachers, pupils, and janitors informing each group of their special responsibilities in case of epidemics and other emergencies, as well.⁴⁰

The White House Conference on Child Health and Protection asks for a daily health inspection of all pupils.⁴¹ The State Department of Education of Alabama has worked out an excellent technique for inspection which covers thirty-five children in ten minutes.⁴² This daily inspection should be insisted upon in the elementary schools not only to seek children who should be excluded but also to give an opportunity for health propaganda. If it is not a routine procedure the physical education teachers should exert their influence to organize this work. They should also urge the adoption of a policy of immunization against diphtheria and smallpox.

The School Safety Program.—The physical education department is usually the key department in the school safety program. Sections on safety education have been issued in their physical and health education manuals by many state departments of education such as Alabama, California, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, Virginia, Washington, and West Virginia.⁴³ In many of the larger cities the physical education departments assume full responsibility of the safety patrol and traffic instruction of children.

PROTECTION FROM ACCIDENTS IN PHYSICAL ACTIVITIES ⁴⁴

As far as accidents within the physical education activities are concerned, Lloyd of New York University reports: (1) 50 per cent of the accidents result from inadequate equipment (uneven or slippery surface) and inadequate leadership control; (2) the most accidents occur in schools without full time physical education teachers; (3) there are fewer accidents in schools where pupils are classified for activities by grades; (4) there are fewer accidents when physical examinations are

⁴⁰ Allen, *loc. cit.*

⁴¹ White House Conference on Child Health and Protection, *op. cit.*, p. 172.

⁴² *Manual of Health Supervision*, Montgomery, Alabama, 1924, pp. 26-27.

⁴³ Excellent pamphlets on the subject are *School Safety Organization* issued by the Division of Physical and Health Education, published by the Commissioner of Education, State of New Jersey, Trenton, and *Safety Education*, prepared by State Department of Education, Virginia, published by the Virginia Department of the American Legion, 1936.

⁴⁴ See Frank S. Lloyd, George G. Deaver, and Floyd R. Eastwood, *Safety in Athletics*, W. B. Saunders Company, Philadelphia, 1936, for a thorough discussion of this problem.

given during the year and used for classification measures; (5) inter-scholastic competition is more hazardous than intramural competition; (6) the smaller the school, the more frequent the accidents and (7) collision with other persons heads the list of causes of all accidents.⁴⁵

Liability for Accidents.—From his study Lloyd finds in regard to liability for injuries to students that “there appears to be a decided preference for the opinion that the school is not responsible for such accidents” and that “the only pleas which have been successful in the legal courts have been on the claim of established negligence.”⁴⁶

Prevention in Relation to Facilities.—A prevention program should consider the following in regard to facilities:

1. First aid material available in all schools.
2. Playgrounds enclosed but not by barbed wire.
3. No cement floors or projecting obstructions in gymnasiums.
4. Stairways well lighted and equipped with handrails.
5. Ice and snow removed from walks and stairs.
6. Fields leveled and cleared of all projections.
7. Use of pits of sufficient size for all jumping and vaulting.
8. Non-participants kept off field where such activities as discus and javelin throw are in progress.
9. Non-slip surface about swimming pools, dressing room, and gymnasium floors.
10. Adequate lighting and no swinging doors.
11. Weekly inspection of all equipment.
12. No storage of equipment or apparatus in corridors or passageways.⁴⁷

The Teacher's Part in a Prevention Program.⁴⁸—The teacher has heavy responsibilities in the program of preventing accidents in physical activities. A few of the duties are as follows:

1. To procure adequate training as a teacher of physical education.
2. To furnish adequate officiating for all games.
3. To give adequate training to students so they can stand the necessary strains of activity.
4. To check the physical condition of students.
5. To supervise facilities and equipment.

⁴⁵ Frank S. Lloyd, *Safety in Physical Education in Secondary Schools*, Educational Series, Vol. IX, National Bureau of Casualty and Surety Underwriters, New York City, 1933, pp. 81, 100, and 126.

⁴⁶ *Ibid.*, p. 125.

⁴⁷ Arranged from Lloyd, *op. cit.*, pp. 131–33.

⁴⁸ Nos. 1–14 arranged from Lloyd, *op. cit.*, pp. 136–40 and nos. 15–23 arranged from Oberteuffer, *op. cit.*, p. 97.

6. To permit the use of heavy apparatus only under close supervision.
7. To use student leaders as assistants but not as fully responsible.
8. To give all students physical examinations before entering activities and to repeat them during the year.
9. Not to rely on parents' judgment as to a student's fitness for an activity.
10. To select school teams from an intramural program only.
11. To classify students by age.
12. To render first aid to students immediately.
13. To train squad leaders in safety.
14. To train all students in safety.
15. To discuss all accidents with classes calling for a consideration of their prevention.
16. To allow no stunts and dares unsupervised.
17. To keep balls inflated less than the maximum and bat handles taped.
18. To keep onlookers at games at safe distances.
19. To allow no accumulations of refuse and broken equipment.
20. To test all apparatus once a week.
21. To keep locker doors closed.
22. To permit no running in dressing and shower rooms.
23. To permit no one to enter the pool unless a trained attendant is in charge.
24. To permit no running on pool runways.
25. To furnish eye glass protectors for the few students who must wear their glasses in activities of close contact.
26. To dismiss classes early enough to avoid their need of running down stairs and in dressing rooms to arrive at their next class on time.
27. To keep closed, during classes, doors leading to stairs through which balls might escape tempting students to run down the stairs after them.
28. To keep locked, during class hours, those doors that open directly upon the danger zone of indoor archery ranges, reserving some other opening as an exit to comply with fire ordinances.
29. To permit no swinging of golf clubs and hockey sticks where students are not in class formations.
30. To see that all hazardous projections in the gymnasium room and on the playing fields are removed or screened off.
31. To have the pegs for cross bars at jumping stands so placed that the bars fall off readily when touched.
32. To permit no persons to enter the pool without an instructor or life guard in attendance: to keep the pool room locked when scheduled activities are not in progress.

Special Protective Rules for Grade Children.

1. Children should not be allowed to sit on apparatus not made for that purpose.
2. All upper grade and primary recesses to be separated.

3. Noon hours to be staggered where play space is small.
4. Baseball bats—No baseball bats be allowed on grounds at noon and recess unless there is adequate organization by supervisor and superintendent. No bats used by kindergarten, first, or second grade children.
5. Horizontal bar—No turning stunts be allowed on a bar over 3 feet high by kindergarten children.
over 3 feet high by first and second grade children.
over 4 feet high by third and fourth grade children.
over 5 feet high by fifth and sixth grade children.
6. Horizontal ladder—No kindergarten, first and second grade children. Third grade children in physical education instruction period only.
7. Giant stride—No first grade children. Second grade children during physical education instruction period only. Boys and girls not on together. Only children near same size on simultaneously.
8. Slide—Kindergarten, first, second, and third grades primarily.
9. Traveling rings—circular—no first or second grade children.
10. Swings—leather swings for kindergarten, first, second and small third graders only.
11. Traveling rings—long—no first, second and third grade children.
12. Climbing tree—No kindergarten, first or second grade children.
13. Climbing poles—No kindergarten, first or second grade children.
14. Miscellaneous—Better instruction, supervision and organization of games, and other physical activities.⁴⁹

HEALTH PROTECTION IN PHYSICAL ACTIVITIES

Participation in physical activities may be a health hazard if the teacher is not aware of their dangers and not properly trained to supervise them. The most common hazards are discussed below.

Athlete's Foot.—Since epidemics of the disease commonly called athlete's foot frequently originate around pools and gymnasiums, it is important that the teacher be able to recognize it and to know how to protect against it. It is caused by a plant parasite and is called by many names, such as "athlete's foot," "ringworm of the feet," "dermatomycosis" or "epidermophytosis interdigitale." "Warmth, moisture and injury are predisposing factors in infection" with the skin between the toes furnishing an excellent location for the growth of the fungus⁵⁰—especially excellent in persons who do not dry the skin between the toes after bathing.

⁴⁹ These fourteen items quoted from Lloyd, *op. cit.*, pp. 20-21.

⁵⁰ Virginia Cleary, "Epidermomycosis Interdigitale," *Bulletin of Mary Hemenway Alumnae Association, Graduate Department of Hygiene of Wellesley College, 1933-34*, pp. 25-29.

Symptoms.—Mild cases show but a slight cracking between the toes while more severe cases show a marked cracking and scaling or blisters accompanied by abnormal whiteness or redness and a pronounced itching.

Protective Measures.—The infected child should either be excluded from the dressing room altogether or not be permitted to step barefooted in any part of it nor to trade shoes or stockings with any other child. While an epidemic exists the floors of all showers and dressing rooms should be scrubbed daily with a solution of zinc chloride or sodium hypochlorite. The former has a "high killing power of 1% or more" within a time of a day or longer. If the floors are not disinfected daily the students should keep their feet covered while in the shower rooms and the floors should be scalded daily with water 70° C. or else washed with hot water, soap, and a scrub brush. All wooden floors in dressing rooms should be abolished.⁵¹

During an epidemic it would be well to keep a can of chlorinated disinfecting powder on a shelf or table in the dressing room with instructions for all to shake some of the powder on their feet and especially between the toes after they have dried them. These cans may be purchased at a saving by ordering by the dozen.

The use of footbaths of protective solution should be required of all before entering a swimming pool and at times of epidemics should be required at the exit of all shower rooms.

Footbaths.—Cleary⁵² says that footbaths of 1 per cent sodium hypochlorite prevent but do not cure the disease. Osborne and Hitchcock,⁵³ however, maintain that a solution of 0.5 per cent sodium hypochlorite should kill all common ringworm organisms of the feet such as do not involve the epidermis too deeply.

Following is a statement prepared by Louis R. Burnett, M.D., Director of Health and Physical Education of Baltimore, giving directions for the preparation of footbaths as they use them in the public schools there.⁵⁴

Each school which has shower baths will receive the following instructions for the prevention of ringworm infections:

⁵¹ Cleary, *op. cit.*

⁵² *Ibid.*

⁵³ Earl D. Osborne, M.D. and Blanche S. Hitchcock, "Prophylaxis of Ringworm of Feet," *Journal of the American Medical Association*, August, 1931, p. 453.

⁵⁴ Circular No. 167, Department of Education, Baltimore, Maryland, p. 2, sent as enclosure in personal letter of November 13, 1936, in which was made the statement that with this procedure for 100,000 showers per month they rarely find athlete's foot infection of crippling severity.

- 1 foot pan 4" x 16" x 23" (capacity 5 gallons)
- 1 glass measuring cup (capacity 1 oz. of powder)
- 1 supply powder (HTH) in cans.

The pan shall be placed at the exit from the showers and refilled with the liquid solution when necessary. A minimum depth of 2" shall be maintained in the pans at all times. The pans should not be filled to a depth of more than 3".

The powder furnished is HTH and not HTH-15 which is furnished on the Janitors' supplies list. HTH-15 is a much weaker solution than HTH and *cannot* be used in accordance with the directions given below for mixing the liquid solution. *Those using this preventive measure should be instructed to dip the feet without splashing upon leaving the showers.*

*Directions for Making Liquid Solution
Ready for Use*

1. To each gallon of water add one ounce of powder.
2. Stir thoroughly until only a slight sediment remains.
3. Liquid solution should be made up when needed. Large quantities made up for future use will deteriorate.
4. When the level of the liquid solution in the foot pan falls below the proper point, bring up to proper level (3") by adding additional solution.
5. Cans should be opened by making a small round hole in the top.
6. Reseal powder cans, when not in use, by corking hole tightly in some manner as powder will deteriorate when exposed to the air. (If a very small hole is made in the container it can be resealed with a *small* piece of adhesive tape.)

Competitive Athletics.—Those who engage in strenuous exercise should be cautioned against drinking freely during periods of exercise: they should quench their thirst by taking a small amount of water into the mouth and swallowing only a small portion of it.

Students need more protection during competitive exercise than during other forms of play; with the emotions involved in a desire to win, the judgment is apt to be dimmed. The teacher must protect them not only from their own emotional drive but from that of their teammates and opponents: at times they need protection even from their teachers and other adults whose unreasoning desire for victory for their group leads them to push the players to the point of physical strain and emotional unbalance. Not only the players but the student followers of highly competitive sports are frequently worked into such a frenzy of

emotional excitement over athletic contests that educators need to give serious consideration to this health hazard to growing children: in many situations the teachers themselves are guilty of purposely stirring up the student's emotions to lend seeming importance to athletic activities. Such procedure is uneducational and is an actual harm to the emotional health of a student body.

Students should not be permitted to engage in athletics to a point where they produce fatigue which a night's rest will not dispel or to a point where they over stimulate and cause nervous excitement. No practices for any team work should exceed one hour a day at the maximum. No one losing weight below standard should be allowed to play in competitive tournaments—not even in intramural tournaments.

Condition of Pool Water.—There is no part of the physical education plant where failure to protect students can so readily result seriously as in the pool. Carelessness in supervision and equipment there can easily claim a life in drowning. Also improper control of water conditions can produce serious health hazards. There should be no compromises in this protective program. The rule should be observed meticulously not to allow the pool to be used except under the following water conditions:

Chemical and Physical Quality of Swimming Pool Water

A. *Excess Chlorine:* Whenever chlorine, calcium hypochlorite or other chlorine compounds are used for swimming pool disinfection, the amount of available or excess chlorine in the water at all times when the pool is in use shall not be less than 0.2 p.p.m. [parts per million] or more than 0.5 p.p.m.

B. *Acidity-Alkalinity:* Whenever alum or sulphate of alumina is used during purification or repurification of swimming pool waters the water at all times when the pool is in use shall show alkaline reaction.

C. *Clearness:* At all times when the pool is in use the water shall be sufficiently clear to permit a black disk 6 inches in diameter on a white field, when placed on the bottom of the pool at the deepest point, to be clearly visible from the side walks of the pool at all distances up to 10 yards measured from a line drawn across the pool through said disk.

D. *Temperatures:* The water in any swimming pool should not be artificially heated to a temperature above 72° F. The temperature of the air at any artificially heated swimming pool must not be permitted to become more than 8° F. warmer nor more than 2° F. colder than the water in the pool at any time when the pool is in use. For best results it is desirable that air temperatures shall be about 5° F. warmer than the pool temperature.

Bacterial Quality of Swimming Pool Water

A. *Bacteria Count on Agar—2 Days—20° C.* (This count is optional): Not more than 10 per cent of samples covering any considerable period shall contain more than 1,000 bacteria per c.c. No single sample shall contain more than 5,000 bacteria per c.c.

B. *Bacteria Count on Agar or Litmus Lactose Agar—24 Hours—37°*: Not more than 10 per cent of samples covering any considerable period shall contain more than 100 bacteria per c.c. No single sample shall contain more than 200 bacteria per c.c.

C. *Partial Confirmed Test*: "Not more than two out of five samples collected on the same day, or not more than three out of any ten consecutive samples collected on different dates to show a positive test in 10 c.c. of the water at times when the pool is in use."

D. All chemical and bacterial analyses should be made in accordance with the procedures recommended in the *Standard Methods of Water Analysis* of the A.P.H.A. [American Public Health Association] in so far as these methods are applicable to swimming-pool waters.⁵⁵

To help keep the water in proper condition the teacher should inspect all bathers before they enter the pool, and should exclude all who have colds, infected feet, sores, bandages, corn plasters, and so forth.

Diagnosis.—The physical education teacher should not attempt to make diagnosis except in the field of posture and hygiene. She must understand the limits of what she herself might do for the child, and beyond that, must recognize the need of correction of health hazards which should be referred to a physician. Any abnormalities which show up in the medical examination, as differentiated from the physical examination, call for reference to the medical profession. The physical educator's part is one of protection and re-education in matters of hygienic living and of correction and education in matters of body mechanics. There are, however, signs of physical condition for which she must ever be on the alert, such as the following:

1. Breathlessness, paleness, flushing, or fatigue after exercise which exceeds that shown by others.
2. Sudden loss of weight.
3. Gradual loss of weight that is continuous.
4. Regular menstruation that becomes irregular after participation in sports.
5. Normal menstruation that becomes painful after participation in sports.
6. Sleeplessness after participation in sports.

⁵⁵ Joint Committee of American Public Health Association and the Conference of State Sanitary Engineers, *Swimming Pools and Other Public Bathing Places*, Reprint from *American Journal of Public Health*, Public Health Association, 1930, pp. 30-31.

Close observation of all students engaged in activity will disclose some of these symptoms, a regular weighing program will reveal others, while constant questioning of all who engage in strenuous sports will bring forth others. When any of these symptoms occurs the girl involved should be dropped from the activity and sent to a special class, or to the rest class, until her family physician, or the School Health Service, sends a written statement to the effect that she may rejoin the class.

Heart Involvements.—According to a bulletin from the New Jersey State Department of Education:

There are a few heart cases who should be excused from physical education. The National Heart Association states in general that about 8% of heart cases should be excused, but Dr. Haven Emerson, head of the movement, says that anyone who is not well enough to take any work in physical education should be at home in bed.

As regards defects found in non-infected children, we may take with confidence the word of Sir James McKenzie that "children with a heart the efficiency of which is impaired will not injure it by exertion." Children are very sensitive to distress provoked by cardiac insufficiency and will themselves abstain without being told.⁵⁶

Physicians inform us that although adults do not seek their exercise peak and "usually operate far below it," children do seek theirs and "operate at it continuously" and, left to their own devices, those "with cardiac involvement will raise their exercise tolerance as high as it will go, and they will do so as fast as their normal impulse will permit."⁵⁷ For a child to seek its own exercise peak is one thing but for it to be forced by pressure from schoolmates, teachers, and parents to a peak beyond its own instinctive choosing is quite another.

For the protection of the child with heart involvement the physical education teacher should be well trained in all health implications of her work. Although this child should not be pushed beyond its normal impulse, that impulse must be nourished for the child must learn to live effectively with the kind of heart with which it is endowed: the teacher should guide the child to a discovery of its own exercise peak and then should help it to maintain it.

⁵⁶ New Jersey State Department of Instruction, Division of Physical and Health Education, Bulletin, February, 1931.

⁵⁷ William St. Lawrence, "Problem Of Exercise For Children with Heart Disease," *Journal of the American Medical Association*, December 31, 1927, pp. 2235-38.

Menstrual Period Considerations.—Counting all cases from mild to severe, a history of dysmenorrhea (menstrual pain) is reported by the majority of girls and young women. Actual incapacitation during the period is not at all uncommon. It occurs most frequently in persons with a history of nervous instability, constipation, loss of weight, frequent infections of the upper respiratory tract, limited participation in sports, and with inferior health in general. The re-education of these cases is at times difficult since it means re-education of parents as well: in some cases the taboos of past generations must be overcome before girls will accept the modern conception of the menstrual functioning as a normal functioning of the body and not a "sick time."

All girls should be made to realize that normally they should be as well then as at any other time, that all hygienic practices, including the daily bath, should continue uninterrupted except that the cold shower and cold dip should be curtailed as the body should not be chilled, and daily exercise should be kept up except that at this time strenuous exercise should give way to milder forms. Except for those whose periodic functioning is not normal, physical education classes do not need to be interfered with other than to have those who are menstruating report for the first, second or third days of the period to milder activities if they chance to be scheduled for basketball and similar strenuous sports.

In its eleventh Annual Meeting in New York City in December, 1930, the American Student Health Association adopted the resolution that "the period of menstruation in the normal college girl should not be presumed to be a period of disability from the ordinary physical and mental activities of college life."⁵⁸

For special protection at this time girls must be urged to exercise neither too strenuously nor too little: pelvic congestion is the most usual cause of discomfort during this period and abstinence from exercise increases the difficulty, while, on the other hand, it is possible for participation in too strenuous exercise to result in uterine displacement. All who suffer from abnormal functioning should be urged to consult a physician: frequently much distress is caused by conditions requiring only minor adjustments.⁵⁹

⁵⁸ American Physical Education Association, "Monograph on Athletics for Girls and Women," *Research Quarterly* of the A.P.E.A., October, 1932, p. 94.

⁵⁹ An excellent mimeographed pamphlet, "The Doctor Answers Some Practical Questions On Menstruation," written by Margaret Bell, M.D., may be procured from the American Physical Education Association office for fifteen cents a copy. Copies should be available in all schools for conference work.

Outdoor Protection.—A few admonitions are necessary for outdoor exercise during the school year such as not permitting pupils to sit or lie on the bare ground while overheated from exertion and being on the alert to see that all have wraps at hand and put them on when resting after vigorous exercise.

Rest Classes.—At times the physical examination findings call for a daily rest assignment in place of the regular physical education class work. In these instances, a chance to rest and relax in earnest should be given the child, or the assignment is useless. This requires supervision of the rest room as a class room where educational work in the art of relaxing and resting should be carried on. Mere passive lying on a cot in an unsupervised room cannot be called "class" work even though it may be a health measure. But class work in resting can be educational as well as healthful if properly conducted and supervised. (Fig. 40.)

In a grammar school of Chula Vista, California, they have rest classes for the children which are not "lying-on-cots" classes but "relaxation" classes. The children go to large sand boxes on sunny days during their physical education class period, and sometimes again at noon, and there they play quietly and listen to stories. They are taught relaxation which is frequently so complete that they fall asleep during the class period.⁶⁰

But rest classes should be for brief emergency conditions only: children who are so physically incapacitated that they cannot profit from (but will on the other hand be harmed by) supervised physical exercise are in no fit condition to attend school. There are periods, however, when children, recovering from illness or emotional strain, should have their physical energies conserved: they should be placed in rest classes during such periods of emergency but as soon as possible should be returned to active exercise. When the emergency turns into a fixed life situation there is either something seriously wrong with the child whose mental outlook on life permits him to accept as his place in the world one of supposed invalidism or there is something wrong with the parents who permit him to attend school when he is in so serious a physical condition.

Frequently lazy pupils abuse the rest class privilege by demanding it unnecessarily: even parents and family physicians, catering to a child's wishes, at times exert pressure upon the department to make such an

⁶⁰ Mildred Kershner, "Unusual Elementary School Program," *Journal of Health and Physical Education*, March, 1936, p. 160.

assignment. A teacher must be expert in judging such cases. It is better to assign some children to rest unnecessarily than to err in not giving the assignment to one who really needs it.

In many schools the physical education teacher has no voice in the



Sleeping room for children with lowered vitality. Most of the pupils of the Ann J. Kellogg School come to this room at some time near the noon hour for an hour's sleep, once a day.

FIG. 40.—*Health protection in the Ann J. Kellogg School, Battle Creek, Michigan. (Reproduced from W. G. Coburn, "Blazing Trails in Education," The Journal of Health and Physical Education, January, 1932, p. 21, by courtesy of the Editor of the Journal and the W. K. Kellogg Foundation.)*

assignment, having to accept as final the decision of the school health service. At times, even parents are allowed no hearing on the matter and some parents object to the placing of their children in the rest class without a chance to obtain the physical development they might obtain from supervised participation in activities suited to their capacities.

In a survey made by the author a few years ago covering the views of parents concerning the physical education work of their daughters this subject was dealt with as follows:

Some parents object to the rest class. They feel that their daughters should be working in an individual gymnastics class to build up their bodies rather than lying passively on a cot. One father is indignant with the health department that does not permit his daughter to engage in physical activity when she exercises strenuously at home, loves activity, and feels keenly the restraint placed upon her at school where she must lie on a cot while her chums swim or frolic in the gymnasium or on the playing field. This father, himself a physician, writes: "This program would be exceedingly beneficial to my child. I am a firm believer in healthful recreation but unfortunately my daughter is underweight. This benefit has been denied her even in the face of a fine clinical and physical examination of one of our best physicians who agrees with me that the exercise would do the child good."

No doubt there are other schools where the health service leans over backward in its attempt to safeguard underweight children. The scales, height box, and weight chart must not be our only criteria of amounts of activity permissible for the maintenance of proper health conditions. I sometimes wonder if the rest room is not in a few cases too easy a solution of a challenging problem. What child, physically able to attend school at all, is not in need of some form of posture training, some form of organic stimulation through exercise of some sort, some form of physical effort if for no other reason than for the acquisition of the tremendous self-respect that is born in a child upon the discovery that she can command her body, can make it submissive to her thoughts, an instrument to obey her will! All of these things any child can be taught even though she is not physically able to play basketball, swim, and dance.⁶¹

Special Classes.—For the protection of those who are physically unable to engage in the usual routine of physical exercise there should be special classes organized in which they should be given the form of physical education which they are fitted to do: these pupils need body training more than do the other students and it is an undemocratic educational organization that neglects their needs. If the underweight students can be segregated for this special class work it would be helpful: under the teacher's guidance they can benefit materially by keeping weight graphs and discussing in a group together their common nutri-

⁶¹ "Parents' Views Concerning the Program of Physical Education for Their Daughters," *Journal of Health and Physical Education*, April, 1933, p. 13.

tion problems. The physically incapacitated children must not be thrown into classes in physical education with normal children for psychological as well as for physiological reasons.

FOLLOW-UP WORK

The task of following up the information gleaned from the medical and physical examinations in the health interests of the students belongs to the health service, the physical education department, and the school room teacher jointly. When the school does not maintain a health service the responsibility falls chiefly upon the physical education department except in the grades, where the school room teacher is the key person.

The Importance of Personal Conferences.—It is not enough to notify parents of defects discovered although this is an important function of follow-up work. The influence of personal conference in guiding present health procedure into correct channels for permanent life habits cannot be overestimated. The personal conference is all important: it is time consuming but the teacher who is deeply interested in the welfare of her pupils does not begrudge the additional hours added to her schedule by this work. Important as this work is, it is difficult to make administrators recognize its educational significance and to allow time for it on the teacher's schedule. This work should be counted in the teaching load.

Those schools that maintain corrective and restricted classes may rightfully expect the corrective teacher to carry the major load of the follow-up work in connection with her class hours since the students needing the most attention are those assigned to her classes.

Many schools offer opportunities for daily health consultations although they are mainly the larger schools. Junior high schools make a better showing in this respect than do the senior or four-year high schools and the schools of the middle Atlantic states lead all other parts of the country in this work.⁶²

Conference Requirements.—One health conference a year for every student should be the absolute minimum: two a year, for the new entering student; four a year, for all who are physically unable to participate in the regular physical education program; and one a month, for those who are too seriously handicapped to participate even in restricted work but must report instead to the rest room. These requirements

⁶² P. Roy Brammell, *op. cit.*, p. 29.

should cover all students, not just those registered in the physical education department: those who have been excused from the work because of physical disability or too heavy a schedule of outside work are the very ones who need the most attention in conference work.

Organization of Conference Work.—All conferences do not need to be private: students needing help on identical subjects might well be grouped into small conference units to save the teacher's time and to gain the stimulus of group discussion of their difficulties. Some topics are in such universal demand that class talks can be employed supplementing them by small group and private conferences for the outstanding cases.⁶³

Conference Topics.—The physical education teacher is questioned by students not only on matters of exercise and body mechanics but also on matters of general health and adjustment. As she meets their questions with a showing of interest and answers them in an authoritative manner she will establish a reputation which will bring students to her in ever increasing numbers thus enlarging her scope of service. But she must be backed by scientific information in answering questions: students' confidence must not be betrayed by pseudo-knowledge. The well-informed teacher keeps in touch with the latest publications of recognized authorities in the field of hygiene, in both books and periodicals.⁶⁴ She must be sure that the information she gives is founded on facts, not fads; on sanity, not superstition; understanding, not belief.⁶⁵

The topics most frequently demanding attention for discussion with students are as follows:

Backache	Emotional adjustment	Shoes and care of feet
Bathing	Exercise	Skin eruptions
Care of hair	Heart lesions	Sleep
Constipation	Menstrual difficulties	Smoking
Diet	Posture	Weight

⁶³ For such class conference work an excellent guide is Ruth Glassow, *Fundamentals In Physical Education* published in 1932 by Lea and Febiger of Philadelphia.

⁶⁴ To mention only three sources of information from the many excellent magazines and books available, the author recommends from her own experience in conference work the following sources as of outstanding merit:

Hygeia, a monthly magazine published by the American Medical Association.

Harold Diehl, M.D., *Healthful Living*, Whittlesey House, New York, 1935.

Richard C. Cabot, M.D., *A Layman's Handbook of Medicine* (With Special Reference to Social Workers), Houghton-Mifflin Company, Boston, 1916.

⁶⁵ Suggested by Diehl, *op. cit.*, Dedication.

Conference Technique.—It is important that the teacher be recognized by the pupils as a personal friend desiring to help them, not as an impersonal critic pointing out their defects and hygienic shortcomings. To create such a feeling among them there are certain conference rules to observe such as the following:

1. Be tolerant and sympathetic.
2. Be kindly yet frank.
3. Be seemingly unrushed for time although needing to conserve time by guiding the conference.
4. Be interested in the child as an individual.
5. Explain as much as is necessary of the difficulty so the child will have an intelligent interest in it in reference to correction.
6. Adjust any misunderstandings the child may have in regard to her difficulties.
7. Advise without "sermonizing."
8. Point out defects without a seeming attitude of intolerance or sarcasm.
9. Treat all private conferences as confidential.
10. Procure all the information possible to help in advising but never pry into the child's personal affairs or seem to cross examine her.
11. Use every conference as an opportunity to inculcate general principles of hygienic living including mental hygiene.
12. Promote a sane interest in physical activity such as the student's limitations will permit.
13. Do not hold out fear of consequences as a means of making a child do what is right.
14. Be yourself—a teacher—do not try to be a "chum."

In regard to this last item, teachers as well as parents should keep in mind the "gulf that exists between any two generations merely because of the difference in age regardless of how modern the point of view or how youthful the manners." ⁶⁶

⁶⁶ D. A. Thom, M.D., *Guiding the Adolescent*, United States Department of Labor, Children's Bureau, Publication No. 225, Washington, 1933, p. 91.

CHAPTER IX
THE TESTING PROGRAM

"Frailest where I seem the best
Only strong for lack of test."

—WHITTIER

MEDICAL AND PHYSICAL examinations should be supplemented by physical capacity, motor ability, and physical achievement tests if students are to be assigned class work intelligently, taking into consideration their motor needs and capacities as well as their organic capacity and physical condition. A former State Superintendent of Public Instruction of Pennsylvania points out that physical education asks the schools for adequate facilities, adequate time allotment, and adequate teaching staff and that the schools, in exchange for these, have a right to demand of physical education "a graded sequential program," "a program based on individual needs," and "a program based on the latest education methods and procedures."¹

History of Testing in Physical Education.—Testing is not an altogether new procedure in physical education. For almost a century there have been anthropometric enthusiasts in the profession, while investigators of muscle strength have flourished for a good half century or more. The modern touch comes not in the testing but in the emphasis which in the past twenty-five years has turned from body symmetry and anthropometric measurements to tests of physical condition and physical capacity and most recently to tests of motor skills.

The present feverish activity in the field of skill tests has stemmed from a slow but steady start early in the present century. The physical ability tests given in the first decade to Public Schools Athletic League of New York City seem to be the earliest record of such school tests. In 1928, 44,117 boys and girls in 450 cities passed the National Recreation Association's physical fitness tests.² The California decathlon tests,³

¹ James N. Rule, "Health and Physical Education Faces the Future," *Journal of Health and Physical Education*, June, 1935, p. 3.

² National Physical Education Service, *News Letter* No. 22, National Recreation Association, New York, September, 1929.

³ Chart copyrighted by C. W. Hetherington.

the Athletic Badge Tests prepared for the Bureau of Education by the Playground and Recreation Association of America,⁴ the Physical Achievement Tests for Girls and Women prepared by the Women's Division of the National Amateur Athletic Federation, the High School Physical Fitness Test of the Public Schools Athletic League of New York City,⁵ the Detroit Decathlon Tests for Boys and Pentathlon Tests for Girls,⁶ and the Swimming Badge Tests of the National Recreation Association⁷ are all familiar to those who have been keeping abreast of testing in the past two decades. Many of these have been widely used and thousands of children have taken the tests.

The Present Status of Testing in Physical Education.—Bringing their testing program up to date the National Recreation Association has formulated new tests called the National Physical Achievement Standards: the tests for boys were offered to the public in 1930, those for girls in 1936. It was estimated that over one thousand physical directors and the public schools of thirty cities and twenty-five colleges were using the boys' standards within one year after their publication.⁸

The national survey of secondary education shows that 25 per cent of the schools studied use physical performance tests and that "the testing program (if any) . . . is still largely in the stage of local experimentation."⁹ The Philadelphia schools use ability grouping in all junior high schools and in many senior high schools; in 1932, 12,381 boys and girls took their three graded tests.¹⁰ In 1933, 22,600 children took the motor ability tests given in the St. Louis schools.¹¹ In Lima, Ohio, the children in the elementary grades work on fundamental skills for at least twenty minutes during each week.¹² Various state depart-

⁴ Published by Bureau of Education, Washington, 1927.

⁵ Issued by the New York City Public Schools, 1930.

⁶ Published in Dorothy LaSalle, *Play Activities for Elementary Schools*, A. S. Barnes and Company, New York, 1926, pp. 126-30, 165-70.

⁷ Published in the *American Physical Education Review*, May, 1929, pp. 298-304.

⁸ National Physical Education Service, *News Letter* No. 47, National Recreation Association, New York, February 1, 1932, p. 1.

⁹ P. Roy Brammell, *Health Work and Physical Education*, *Bulletin* No. 17, *Monograph* No. 28, Department of Interior, Office of Education, Washington, 1932, pp. 79-80.

¹⁰ Grover Mueller, *Report of the Division of Physical and Health Education*, Board of Education, Philadelphia, 1933, pp. 7 and 21.

¹¹ A. E. Kindervater, "Condensed Report of the Mass Motor Ability Test of the St. Louis Elementary Schools, 1933," *Journal of Health and Physical Education*, June, 1934, p. 32.

¹² H. G. Danford, "The Elementary Teacher as a Physical Educator," *Journal of Health and Physical Education*, January, 1931, p. 45.

ments of education, through their printed manuals, suggest programs of testing to be used by all schools of their states.

Values of a Testing Program.—Ireland of New Jersey says:

Testing and measuring in physical education is another sure way of arousing sufficient interest to start the pupil talking. The child, as you know, is vitally concerned with something he can see or feel, such as, a gain in height and weight or a higher coefficient. If we organize our work around concrete measurements by means of the scale, measuring tape and the dynamometer, we give the child something to talk about. He can measure his progress from term to term, and he is interested in seeing self-improvement. Moreover, measurements give us something tangible to report to the parents.¹³

The principal values of a testing program are as follows:

1. It gives a basis for homogeneous grouping which makes a better program.
2. It holds the student's interest in the physical education work: discipline becomes a minor problem.
3. It gives a basis for equalization in competition which in turn produces better competition.
4. It motivates students to do hard work.
5. It gives the instructor information as to students' abilities, at the beginning of a course, during, and at the close of the course.
6. It enables the teacher to know what he should expect of each student.
7. It is an aid in teaching.
8. It is valuable assistance in planning corrective procedures.
9. It gives the basis for building the program around the individual needs of pupils.
10. It gives information on which personal help to students may be based.
11. It gives a good basis for comparing program results year by year.
12. It sorts out the best students to train as leaders.
13. It offers immediate interest to those who are being introduced to their first work in physical education.
14. It assists in determining marks.
15. It arouses an interest in students in their physical fitness.
16. It motivates students to work at physical improvement outside of their physical education class periods.
17. It offers opportunity for superior students to improve their rating.

¹³ *Report on the Interpretation of Physical Education*, Committee of the Society of State Directors of Physical Education, New York, December 31, 1929, p. 10.

18. It interests the parents when they see that there is an actual aim in the work towards improvement in ability and fitness.
19. It arouses an interest in the work on the part of the school administrators.
20. It gives the teacher increased integrity in his work.¹⁴

An Aid in the Transfer of Records.—When a pupil advances to a new grade or changes to a new school his academic record is forwarded with him. It is equally important that the physical education record be forwarded. As McCloy says:

Physical measurements of growth and development, together with other motor records more commonly associated with programs of physical education . . . such as strength tests, interpreted in terms of physical fitness index, should be as much a part of the continuing school record of the child as are his records of intelligence, of grades, of conduct, and of mental hygiene.¹⁵

A sound program of testing is the only basis of procuring accurate information for a continuing school record in physical education.

Effect upon Standards of Teaching.—Motor ability tests given to entering college students show a lack of training in body mechanics. It is a lamentable commentary on the secondary schools to find that so few of their graduates can with ease run in and out of a maze of chairs, climb over a barrier, or scale a ladder, not to mention their inability to walk, stand, and sit efficiently, and to perform a few physical activities with skill.

Graduation from an approved high school should mean the attainment of a certain standard of physical efficiency. A good testing program will bring to light the fact that the average pupil shows poor body mechanics necessitating a physical education program built around the acquisition of body skills. The teacher should "test, teach, test" until the average pupil attains the standard. The day of killing time with whistle-blowing, drawn-out calling of rolls, and teaching without lesson plans or attainment standards will be over when the physical education teacher is required to prepare her pupils to meet high graduation requirements.

When this educational procedure becomes universal the colleges will no longer be confronted with the present need of educating motor

¹⁴ Adapted from W. H. Mustaine, "Tests and Measurements in Physical Education," *Supplement to Research Quarterly* of the A.P.E.A., March, 1935, p. 11 and Francis J. Moench, "Solving Small School Problems Through Measurements," *Journal of Health and Physical Education*, December, 1934, pp. 28, 48.

¹⁵ C. H. McCloy, "Anthropometry in the Service of the Individual," *Journal of Health and Physical Education*, September, 1934, p. 47.

morons such as now come out of the high schools of our land. Rogers sums up the teaching needs in relation to testing thus:

[The future of physical education depends] largely on our active acceptance of health or physical fitness as a prime objective, and on measurements to determine our problems and success. We must examine our pupils regularly and repeatedly to determine their needs for corrective or restricted activities, for normal programs, or for the privilege of being excused from all compulsions because they can pass all tests. We must measure their progress, both to determine which are the best methods of achieving objectives, whether in health or social efficiency, and to justify the costs of our services and facilities. Finally, we must measure both needs and progress in order to clarify our own objectives and secure the personal satisfaction of sure knowledge that our work has been well done.¹⁶

TESTS USED IN PHYSICAL EDUCATION

The Curriculum Committee of the Public School Section of the American Physical Education Association reports that although tests can be used to advantage in large schools it is hard to utilize them for homogeneous grouping in the small town and rural schools.¹⁷ Many who have used them in the small school, however, claim that the testing program is proving a great boon: one enthusiast speaks of it as "a highly reliable and practical method of insuring the success of small-school physical education."¹⁸ The tests most used in the small schools are the Brace tests, the Rogers' Physical Fitness Index, and tests of organic power.¹⁹ The survey of secondary education found that the Rogers' tests seem to be the best known, although the Playground and Recreation Association Badge Test, the Seaver Test, tests devised by various State Departments of Education, and many locally devised tests are in general use.²⁰

Tests most commonly used in a physical education program may be roughly grouped into two classes, physical capacity and achievement tests, the first being used to classify as to capacity to achieve, the second to classify as to actual achievement and progress in achievement. In

¹⁶ Frederick Rand Rogers, "The Future of Physical Education," *Journal of Health and Physical Education*, January, 1933, p. 23.

¹⁷ Laurentine B. Collins, "Curriculum Study for the Public Schools Section of the American Physical Education Association," *Research Quarterly* of the A.P.E.A., December, 1934, pp. 114-17.

¹⁸ Francis J. Moench, *op. cit.*, p. 28.

¹⁹ Collins, *loc. cit.*

²⁰ Brammell, *op. cit.*

addition to these there are diagnostic, motivation, knowledge and appraisal tests, all of which are discussed below.

Physical Capacity Tests.—Under this heading fall all tests that may be used to group children according to their abilities to assimilate physical training.

Strength Tests.—Strength tests are of importance because they give valuable information as to vital functioning since "practically every change in the condition or functioning of the vital organs has a corresponding change in the condition or functioning of voluntary muscles." ²¹ It has been established objectively that "*strength tests, when scores therefrom are statistically combined . . . reveal organic fitness or lack of fitness with a remarkable degree of validity. . . .* Low [scores] have led to the discovery, by physicians, of such 'drains' as tuberculosis, badly refracted vision, poor nutrition, syringomyelia, infected tonsils, nervous debility, etc." ²² These tests are valuable in determining muscular ability and, through that, indicating conditions of body functioning, but they should not be looked upon as tests of essential body strength.

In all probability the best known test in the physical education field is the *Rogers Physical Fitness Test* ²³ which is devised for both sexes from ten to twenty-three years of age. It is a combination of tests with the performance ratings grouped into an index, known as the P.F.I.—Physical Fitness Index. This index is derived by combining the standards of performance in the following: grip tests—both right and left hand—push up, pull back, back lift, leg lift, and breathing capacity. These standards are grouped by age, weight, and sex. ²⁴

For many small schools this battery of tests is out of the question because of the cost of the testing equipment. ²⁵ But a school that can afford the equipment should by all means use this or similar tests for classifying. ²⁶

²¹ Frederick Rand Rogers, "The Significance of Strength Tests in Revealing Physical Condition," *Research Quarterly* of the A.P.E.A., October, 1934, p. 43.

²² *Ibid.*, pp. 43-44.

²³ Brammell, *op. cit.*, p. 80.

²⁴ These tests are described in Frederick Rand Rogers, *Physical Capacity Tests* published by A. S. Barnes and Company, New York, 1931.

²⁵ According to Rogers' figures of 1931 the spirometer costs from \$15 to \$50; the hand dynamometer, from \$100 to \$125; the book of instructions, 75 cents and tables of indices, a few cents each, making a total of \$131 to \$206. The tables of indices are published by the New York State Education Department in size 8½ x 11 inches and by Langton Company, 41 East 42 Street, New York, in size 16 x 22 inches.

²⁶ An adaptation of the Rogers' Tests which is a briefer test is described in C. H. McCloy, "The Apparent Importance of Arm Strength In Athletics," *Research Quarterly* of the A.P.E.A., March, 1934, pp. 3-11.

Wendler²⁷ finds that the "strengths of six muscle groups—the thigh extensors, the thigh flexors, the leg extensors, the deltoids, the pectoralis major, and the hand flexors—when properly combined will predict total strength of women" with a fairly high degree of reliability and will require no expensive apparatus. A more recent study seems to indicate that breathing capacity is "of little significance as an element in the strength test."²⁸

Cardiac Functional Tests.—These tests are designed to give an indication of physical condition through response to muscular activity. Pulse-rate tests, pulse-rate-return-after-exercise tests, and the Schneider cardio-vascular test are cardiac functional tests. They are important for by their use students who should be referred to a physician before entering upon physical activity assignments can be quickly sorted out for immediate attention. The trained physician then examines the child and gives the actual diagnosis upon which the teacher bases the final activity assignment decision.

Motor Ability Tests.—Motor ability is that "ability in the manipulation of the body which is more or less general, which is more or less inherent, and which permits an individual to learn motor skills easily, and to become readily proficient in them. Because of the implication of general ability rather than specific ability or achievement, motor ability tests should be expected to be better measures of capacity than are single achievement tests."²⁹ *The Oregon Test for College Women* is a motor ability test. It is used to classify the new entering students and consists of a battery of four tests: 40-yard maze run, ball change, trunk bend, and jump and reach.³⁰

A well known motor ability test is the *Sargent Jump*.³¹ It consists

²⁷ Arthur J. Wendler, "An Analytical Study of Strength Tests Using the Universal Dynamometer," *Supplement to the Research Quarterly of the A.P.E.A.*, October, 1935, pp. 82 and 85.

²⁸ Deobold Van Dalen, "The Contribution of Breathing Capacity to the Physical Fitness Index," *Research Quarterly of the A.P.E.A.*, December, 1936, p. 94.

²⁹ "Report of Committee on Terminology," *American Physical Education Review*, September, 1929.

³⁰ Florence Alden, Margery Horton and Grace Caldwell, "A Motor Ability Test for University Women for the Classification of Entering Students Into Homogeneous Groups," *Research Quarterly of the A.P.E.A.*, March, 1932, pp. 87-120. Copies may be procured in reprint form. The article does not, however, give tables of standards nor does it give an interpretation of its classifications in terms of class assignments which should be made in light of one's motor ability classifications. It is hoped that the authors will follow up this first published report with this other necessary material so that this test may be made available in its practical aspects for the college women's field.

³¹ D. A. Sargent, "The Physical Test of a Man," *American Physical Education Review*, April, 1921, pp. 188-94.

of a jump straight up into the air; a disc measures the height which the top of the head is able to attain. Sargent spoke of this as a "momentary try-out of one's strength, speed, energy and dexterity combined, which . . . furnishes a fair physical test for men and solves in a simple way his unknown equation as determined potentially by his height and weight."³²

From a recent study of this test made on high school girls of St. Paul, it is shown that the jump alone is almost as good as the combination of jump and age for predicting track and field points, and that a consideration of height and weight adds nothing of significance."³³ This verifies similar conclusions arrived at earlier by Sargent's son.

Motor Capacity Tests.—The McCloy Test is a "test of *general* innate motor capacity."³⁴ It does not attempt "to measure *specific* skills and abilities." It consists of a strength test—for girls the number of pull-ups (not the strength of pull-ups), a sprint of 60 yards, standing broad jump, and throwing an indoor baseball for distance.³⁵ From this test, McCloy proposes a General Motor Achievement Quotient which is "100 × the general motor ability score divided by the general motor capacity score . . . a body having a general motor achievement quotient of 90 can be told that his achievement is 90% of what it should be if he was developed as well as could be expected for age and general maturity . . . an estimate of how good he is for how good he could be."³⁶ The details for the giving of this test are available in published form.³⁷ Other such tests are described in the literature on testing.

Prognostic Tests.—Prognostic tests predict not only the possible development a person may make in physical ability but also the capacity he may have for physical activity. By means of these tests teachers should be able to direct students intelligently towards the acquisition of skills which they will be able to do well.

No particular test is sufficiently developed as yet for use with girls and women. The physical fitness obtained from strength tests should

³² Sargent, *op. cit.*

³³ Eleanore Groff Adams, "The Study of Age, Height, Weight, and Power as Classification Factors for Junior High School Girls," *Research Quarterly* of the A.P.E.A., May, 1934, p. 100.

³⁴ C. H. McCloy, "The Measurement of General Motor Capacity and General Motor Ability," University of Iowa Studies, *Supplement* to the *Research Quarterly* of the A.P.E.A., March, 1934, pp. 46-61.

³⁵ *Ibid.*, pp. 48, 58.

³⁶ *Ibid.*, p. 59.

³⁷ C. H. McCloy, *The Measurement of General Motor Capacity*, published privately by author, University of Iowa, 1933.

not be accepted too seriously as a prognosis of athletic ability in girls.³⁸

Achievement Tests.—After pupils are classified for activity by the use of some classification formula, it is then necessary to ascertain their ability and to measure their progress within the activity assigned. For this purpose achievement tests are used.

Each activity taught in the physical education program has its specific achievements. Professional literature contains many examples of tests of these attainments. To measure achievement in general there are tests made up of combinations of abilities. The best known of such tests are discussed below.

Neilson and Cozens Achievement Tests.—These tests are designed for both boys and girls from ten to eighteen years of age. They cover thirty-three different tests for boys and twenty for girls. They may be used in any combination: the teacher may select any ten to make a decathlon or any five for a pentathlon. The most desirable groupings are made by selecting an assortment from each of the following types of activities: running, throwing, kicking, jumping, pulling, pushing, and catching. These tests are to be used in conjunction with the age-height-weight classification chart and the achievement scales which have been developed by the originators of the tests.³⁹

*National Physical Achievement Standards for Girls.*⁴⁰—Miss Howland of Mt. Vernon, New York, made an extensive survey for the National Recreation Association which covered four hundred thousand individual performance records of girls from eight to eighteen years of age taken from all parts of the United States and covering both urban and rural schools. These performances were analyzed, and standards and scoring tables were developed in fifty-three events covering game skills, self-testing, and individual athletic activities. These tests are offered as "incentives to students in the physical education program;

³⁸ Theresa W. Anderson, "Weighted Strength Tests for the Prediction of Athletic Ability in High School Girls," *Research Quarterly* of A.P.E.A., March, 1936, p. 142.

³⁹ For full description of each test, directions for giving each, scales for marking achievement in each, listed in eight different classifications, and for suggested combinations of activities to make up a battery of tests see Neilson and Cozens, *Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High Schools*, Copyright, 1934, A. S. Barnes and Company, Publishers, New York.

⁴⁰ Amy R. Howland, *National Physical Achievement Standards for Girls*, National Recreation Association, New York, 1936. (Full directions for giving all the tests, for scoring and classifying pupils are included in the pamphlet which sells for twenty cents.)

in classifying pupils into teaching units and in planning and rating programs." ⁴¹

As further incentive to work at skills, the National Recreation Association offers four different certificates for achieving certain standards in each of four groups of activities:

1. Skills in activities measured by time
2. Skills in activities measured by distance
3. Skills in activities measured by success or failure
4. Skills in activities measured by number of successful efforts in a given number of trials.

So large a variety of activities is included that every school can meet the requirements of equipment for many different tests. These standards of achievement are in use in hundreds of schools all over the country. According to reports from Carl H. Burkhardt their use is mandatory in the entire elementary school system of Buffalo.⁴² Figure 41 shows a sample score card.⁴³

Tests for High School Girls.—In the high school field, achievement standards have been set up by the Committee on Skill Tests of the Illinois State League of High School Girls' Athletic Associations.⁴⁴ They cover the following activities:

Archery	Folk dancing	Rhythms
Baseball	Fundamental motor skills	Tap dancing
Basketball	Hockey	Tennis
	Posture	

Achievement standards for high school girls are now available including scoring tables.⁴⁵ Standards covering the complete range of skills within each activity are given for a large variety of activities in the courses of study issued by many city and state departments of education. None of these, however, offers scoring tables for the standards they set up.

Tests for College Women.—In the college field, achievement tests for women, with complete directions for testing and scoring, have

⁴¹ Howland, *op. cit.*, p. 3.

⁴² News item in *Journal of Health and Physical Education*, February, 1936, p. 104.

⁴³ For sale by the National Recreation Association, 315 Fourth Avenue, New York City, at one cent each or ninety cents for 100 copies for the score cards and at three cents each or \$2.50 for 100 copies of the certificates.

⁴⁴ Mary R. Wheeler, *Report of Committee on Revision of Skill Tests*, Illinois State League of High School Girls' Athletic Associations.

⁴⁵ Cozens, Cubberly and Neilson, *Achievement Scales for High School and College Women*, Copyright, A. S. Barnes and Company, Publishers, New York, 1937.

NATIONAL PHYSICAL ACHIEVEMENT STANDARDS
FOR GIRLS

Primary Score Card

Ages 8 and 9

Year.....

Name..... Grade..... School.....

City..... State..... Age..... Weight..... Height.....

Events	Percentile Scores										Points
Group I — Time	1	2	3	4	5	6	7	8	9	10	
All-Up Indian Club											
30 Yard Dash											
Run and Catch											
Group II — Distance											Points
Bell Throw for Distance											
One Foot Hop											
Standing Broad Jump											
Rope Climb											
Group III	Success					Failure					Points
Jump Rope I											
Backward Roll											
Balancing A											
Cartwheel											
Forward Roll A											
Knee Walk A											
Group IV	0	1	2	3	4	5	Points				
Ball Bouncing											
Bean Bag Ring Throw											
Hit Pin Bowling											
Hop Scotch Stunt I											
Hop Scotch Stunt II											

Total Points

Qualifications for Certificates

National Physical Achievement Certificates for eight or nine year-old girls will be awarded upon the successful completion of 70 points. One or more events must be elected in each of the four groups of activities. The total number of points may not be secured from one group alone.

Remarks:

.....

.....

Examiner

Position

FIG. 41.—Reproduced by courtesy of the National Recreation Association.

been worked out by Cubberly and Cozens and by Hyde of the University of California, Los Angeles.⁴⁶

The first two mentioned, in collaboration with Neilson of Stanford University, have produced a book covering tests and scoring scales for college age as referred to under tests for high school girls.

Diagnostic Tests.—Tests that recognize or show up symptoms are diagnostic tests. The Physical Achievement Standards of the National Recreation Association and the Neilson-Cozen tests may be used for diagnosis: the teacher may study the parts of the whole test for any one pupil and discover wherein she is weak. Medical and physical examinations are also diagnostic tests. According to Bovard and Cozens:

Diagnosis is a very difficult function of the teacher and those who wish to construct diagnostic tests must aim at a complete analysis of all the skills which are possible results of a given unit of work. Each of these skills must be measured and interpreted on the basis of norms which are reliable for individual performance in contrast with group performance. Further than this, a remedial program must follow the diagnosis. . . . Remedial teaching must be based upon known deficiencies. Without actual knowledge, remedial teaching is a hit or miss proposition.⁴⁷

Motivation Tests.—The National Physical Achievement Standards and the Neilson and Cozen tests are good examples of motivation tests. Experience shows that they have proved valuable wherever used to awaken in pupils a desire to improve their physical efficiency and motor skills once they see where they stand in reference to scales of achievement. They offer an objective method of showing pupils wherein lie their strengths and weaknesses and of measuring their progress towards a desired end.

Knowledge Tests.—The Proviso Township High School, Maywood, Illinois,⁴⁸ gives informational tests to its girls in the following: archery, baseball, basketball, health, hygiene and hockey. In the college field the University of Minnesota has compiled a series of knowledge tests⁴⁹ that are used "as pretests for classifying students on entering

⁴⁶ Frederick Cozens and Hazel J. Cubberly, "Achievement Scales in Physical Education for College Women," *Research Quarterly* of A.P.E.A., March, 1935, pp. 14-23 and Edith I. Hyde, "National Research Study in Archery," *Research Quarterly* of A.P.E.A., December, 1936, pp. 64-74.

⁴⁷ *Tests and Measurements*, W. B. Saunders Company, Philadelphia, 1930, pp. 22-23.

⁴⁸ Report from Mary R. Wheeler, Director of Physical Education for Girls, December 19, 1935.

⁴⁹ Catherine Snell, "Physical Education Knowledge Tests," *Research Quarterly* of the A.P.E.A., October, 1935, pp. 78-94 and March, 1936, pp. 73-82 and May, 1936, pp. 77-91.

the University and as post-tests for grading at the end of the term." For classification purposes the scores from these tests are combined with scores from skills tests. They cover ten activities: archery, baseball, basketball, fundamentals, golf, hockey, hygiene, soccer, tennis and volleyball with a range of forty-five questions for each activity and ninety for hygiene. These tests have been revised three times since their original compilation and have been thoroughly tested for their reliability and validity.

Appraisal Tests.—According to McCloy some tests need be given but every three years; such tests are the Sargent Jump⁵⁰ which is "a test of the individual's available horsepower as related to his size and weight";⁵¹ the Johnson Test⁵² which is "probably the best [of such tests] to use in a school system which employs stunts in its general program";⁵³ the original Brace Tests⁵⁴ or the Iowa Revision of the Brace Test;⁵⁵ and the Burpee Test.⁵⁶ These tests combined would give a *motor quotient* which it is believed would remain constant for a period of three years and in the motor field is somewhat analogous to the Intelligent Quotient in the mental field.⁵⁷

Other appraisal tests are used before permitting students, who have been absent because of colds and influenza, to re-enter the activities of the school: these tests are designed to determine if they have sufficiently recovered.⁵⁸ Such tests are the Tuttle-McCloy Test,⁵⁹ the Schneider Test,⁶⁰ the Pulse-Ratio Test,⁶¹ and the Test of Present Condition.⁶²

⁵⁰ Described in Sargent, *op. cit.*

⁵¹ C. H. McCloy, "A Program of Tests and Measurements for the Public Schools," *Journal of Health and Physical Education*, October, 1935, p. 19.

⁵² Described in Granville B. Johnson, "Physical Skill Tests for Sectioning Classes Into Homogeneous Units," *Research Quarterly* of A.P.E.A., March, 1932.

⁵³ McCloy, *loc. cit.*

⁵⁴ Described in David K. Brace, *Measuring Motor Ability*, A. S. Barnes and Company, New York, 1927.

⁵⁵ Described in C. H. McCloy, *Iowa Revision of the Brace Test*, second edition, mimeographed.

⁵⁶ Described in C. H. McCloy, "The Measurement of General Motor Capacity and General Motor Ability," *University of Iowa Studies, Supplement to the Research Quarterly* of the A.P.E.A., March, 1934, pp. 46-61.

⁵⁷ C. H. McCloy, "A Program of Tests and Measurement for the Public Schools," *Journal of Health and Physical Education*, October, 1935, p. 20.

⁵⁸ C. H. McCloy, "Anthropometry in the Service of the Individual," *Journal of Health and Physical Education*, September, 1934, p. 46.

⁵⁹ Described in McCloy *op. cit.*

⁶⁰ Described in C. H. McCloy, *The Physiology of Exercise*, Lea and Febiger, Philadelphia, 1924, pp. 214-16.

⁶¹ Described in W. W. Tuttle, "Use of the Pulse-Ratio Test for Rating Physical Efficiency," *Research Quarterly* of the A.P.E.A., May, 1931, p. 5.

⁶² Described in C. H. McCloy, "A Cardio-Vascular Rating of Present Condition," *Arbeits-physiologie*, November, 1930.

The Pulse-Ratio Test should be used by a teacher "who wishes to check on the probable condition of the heart."⁶³

TESTING PROCEDURE

Teachers should be warned that, although a testing program is important and desirable, it should never become the end, the physical education program itself. In other words the giving of tests should not fill up the major class time except on special occasions when testing is necessary. It is also important to understand that tests should not be used to compare the rating of one child with that of another: they should be used only to compare a child's present rating with his own past record.

Tests used to measure achievement should be given at least three times within the term; at the beginning to show the starting point for each pupil, during the course to mark progress and to motivate before the end, and at the close to show the amount of progress which has taken place.

Tests of physical fitness made for the purpose of classifying girls should be given during the post-menstrual period and at least two days before the next period.⁶⁴

Preliminary Procedures.—As in the giving of physical examinations the preliminaries are an important part of the procedure. The following suggests the many things that should be done before the actual testing should begin.

1. Decide what you wish to test and why: from that, determine what specific tests to give taking into consideration the facilities, equipment, and time at your disposal.
2. Notify all students beforehand that tests are to be given and why.
3. Assign the following responsibilities:
 - a. One person to be coordinator to see that all details are properly taken care of before, during, and after the tests.
 - b. One person to be responsible for the advance preparations of all facilities and for their care during testing and their return to order after testing.
 - c. One person to be responsible in like manner for all equipment and supplies.
 - d. One person to be responsible for scheduling the students for the tests and notifying them. (In giving the Rogers Physical Fitness

⁶³ C. H. McCloy, "A Program of Tests and Measurements for the Public Schools," *Journal of Health and Physical Education*, October, 1935, p. 21.

⁶⁴ Ivalclare Sprow Howland, "The Application of Testing to Determine the Physical Fitness of College Women," *Research Quarterly* of A.P.E.A., May, 1936, p. 123.

Tests, Rogers advises that all come one day for the breathing capacity, grips, push-ups, and pull-up, and a second day for the back and leg tests.)⁶⁵

4. Weed out those who should not be tested. The medical examination should precede all tests and those classed by it for modified or restricted work should be excused from tests given to classify the other students. Do not give back and leg strength tests to students who have hernia or are subject to attacks of appendicitis or have had a recent abdominal operation.
5. Set down in writing all details of each thing to be done in giving the tests.
6. Rehearse with all workers all details of testing and recording.

Giving the Tests.—No teacher should attempt to give tests until she is thoroughly familiar with the minutest details of each thing to be done. Even the experienced teacher would do well to review procedures frequently, using a guide to refresh her memory.⁶⁶

CLASSIFYING THE PUPILS

Homogeneous groupings have always been in use throughout the general education system, but it is only in recent years that physical education has come to insist upon the use of such homogeneous groupings as are advantageous to its own work. Grouping by grade placement alone is no longer acceptable: it "favors the older, heavier, and stronger individuals as the variance in height, weight, and age within a grade is considerable"; grouping by age alone, also, will not do since "there is much variability in height and weight within each age group"; and grouping by weight alone is not advisable because "it is not known how much of the weight is fat or bone, and how much is muscle" and "there is a wide variation in maturity at a given weight."⁶⁷ For fairness in competition and for interest in class work, pupils should be classified according to physical capacities. Medical examinations and physical capacity tests furnish the basis of this classification.

Grouping Plans.—The large schools use a four-group plan of classifying; the average school, a three-group plan; and the small school, a two-group plan. The four-group plan is in use in Rochester, New York, as follows: those who receive a P.F.I. rating of more than 15

⁶⁵ Frederick Rand Rogers, *Physical Capacity Tests*, Copyright, 1931, A. S. Barnes and Company, Publishers, New York, p. 103.

⁶⁶ Excellent guides are: Rogers, *op. cit.*; Neilson and Cozens, *op. cit.*; Cozens, Cubberly and Neilson, *op. cit.*; and F. R. Rogers, *Fundamental Administrative Measures in Physical Education*, Pleiades Co., Newton, Massachusetts, 1932.

⁶⁷ Neilson and Cozens, *op. cit.*, pp. 4-5.

per cent above the average for the entire group are classed as A; those who range from this average to 15 per cent above are classed as B; those who fall in the range from average to 15 per cent below are classed as C and those who are more than 15 per cent below average are classed as D. The pupils in group A are permitted to choose the type of physical education work they will take: they usually prefer either leadership in school-hour classes or leadership and participation in after-school activities; pupils of groups B and C are placed in regular required class work but in separate sections and those of group D are assigned corrective work which is given to each daily.⁶⁸

The University of Oregon uses the four group plan as follows: those who are found by the medical examination unfit for the regular work are placed in one group for individual attention, all others are given a motor ability test and from it are grouped into "novices" and "regulars" from which are later selected the honor rating students. The "novices" are assigned special training aimed to build up the basic co-ordinations they seem to lack. The "regulars" are given a choice of activities with the one limitation that they must take "at least two terms of one activity and at least three different activities in the six terms of required work." At the end of the first year the classification tests are repeated and all who make a high score are given an honor rating. This fourth group is given much freedom "as to time and place and as much self-direction and responsibility as possible."⁶⁹

The State Department of Education of New York recommends the three-group plan, suggesting that the 15 to 25 per cent of all in grades seven to twelve who have the lowest physical fitness index be assigned special class work or daily rest and that the highest 15 to 25 per cent be permitted to elect their activities while those in the middle group be assigned the regular prescribed courses.⁷⁰ The State Department of Education of Washington recommends similar classifications.⁷¹ In Quincy, Massachusetts, they use the three-group plan as follows: the low P.F.I. group is assigned to a physical education class four times a week for individual attention, the middle or average group is assigned gymnastics one day a week and sports the remainder of the

⁶⁸ Herman J. Norton, "Explanation of Rochester Modern Program," *News Letter* No. 34, National Recreation Association, New York, November 1, 1930, p. 6.

⁶⁹ Alden, Horton and Caldwell, *loc. cit.*

⁷⁰ Division of Health and Physical Education, *Secondary Physical Education Syllabus—Girls*, Bulletin No. 1045, State Department of Education, New York, June 1, 1934, pp. 27-29.

⁷¹ State of Washington, Health and Physical Education, *A Program for High School Boys and Girls*, State Department of Education, Olympia, 1934, p. 22.

time, and the upper group is permitted to work off its physical education assignment in after-school sports. In May, all who are to return in September, are given strength tests and all with a P.F.I. below 85 are given a thorough medical examination.⁷²

The small school does not have a large enough enrollment to warrant the three-group plan. In such schools those children who receive the lowest ratings in the examinations and tests should be grouped into one class for special work, the others into a second class for regular work.

Classification Methods.—For elementary and secondary school children, one performance scale is not sufficient to classify in achievement since height and weight vary markedly in children of a given age and in a given grade. Up to ten years of age, however, the three factors of height, weight, and age are sufficient basis for classifying. Beyond that age, sex should be recognized as a fourth factor.

To meet the problem of homogeneous grouping many classification methods have come into use, among which are the Atlantic City, the Y. M. C. A., the Reilly, the Anderson, the McCloy, and the Detroit methods, all of which are described by Sharman of Michigan.⁷³

The public schools of Oakland, California, have developed a classification chart using grade, age, height, and weight as the basis for grouping for ages ten to eighteen. This chart in its original form is the one used as the basis of the achievement scales devised by Neilson and Cozens.⁷⁴ Teachers should be conversant with this classification method.

⁷² William H. Whiting, "The Measurement and Reporting of Results of Corrective and Developmental Physical Education," *Supplement to the Research Quarterly*, March, 1935, pp. 116-24.

⁷³ Jackson R. Sharman, *Introduction to Physical Education*, A. S. Barnes and Company, New York, 1934, pp. 237-43.

⁷⁴ Neilson and Cozens, *op. cit.* and Rogers, *op. cit.*, Chapters XVI and XIX, offer excellent guides in classification work.

CHAPTER X
PHYSICAL EDUCATION SCHEDULES

"One of the most important, but difficult problems in the administration of a program of physical and health education is that of convincing all the teachers that the physical education and health program is a vital part of the educational plan, and not an appendage; that it is not only as important as any other subject of the curriculum, but is more important than any other subject of the curriculum, and should receive more time, and as skillful treatment."

—BROOME¹

THE SCHOOL that offers its children physical activity comparable to their developmental needs is the school that seizes every opportunity towards that end. Such a school offers a three-fold physical education program: periods of instruction during school hours, periods of informal but supervised play during recesses, before and after school, and noon hours; and in the elementary grades periods of relaxation each hour of the day. These various periods should be scheduled in the name of physical education so that they will be recognized by the entire school as an integral part of the physical education program.

PROBLEMS OF SCHEDULING

Homogeneous Groupings.—After students are examined and given physical capacity tests they should be grouped according to physical fitness and preparedness to proceed with their motor education and then they should be scheduled into class groups according to these ratings. Physical education classes should not be used as "catch-alls" for school schedule committees: under such circumstances educational work can not be carried on. Not only should the unskilled within the various age groups be classed together but the highly skilled should also be

¹ Edwin C. Broome, "Administration of the Health, Physical Education and Recreation Program," *Journal of Health and Physical Education*, April, 1930, p. 21.

sorted out for a special level of class work: these two groups should not be thrown together except as the skilled serve as leaders for the others. Also those physically below par should be scheduled apart from the sturdy since educational procedures should be different for these two groups. Protection should be accorded the physical education department in its efforts to schedule students according to their physical capacities.

Class Loads.—The National Survey of Secondary Education reported classes ranging from twenty-five to one hundred fifty with one class in military training with three hundred boys.² It is no more possible for a physical education teacher than for any other teacher to do efficient work with a class that is too large although many administrators who protect the size of classes in other subjects permit schedule committees to pour students into physical education classes regardless of numbers or physical capacities. Over-large classes in physical education can be drilled in masses, thus disciplined and kept out of mischief for the period, but that is not education.

Load for Elementary and Secondary Schools.—Although fair work can be done by some teachers in some activities with a class of sixty students, forty should be the maximum size if good work is to be expected. For some activities even that number is too large although a jury of experts agrees that forty should be the standard for regular class sizes.³

Load for Corrective or Individual Gymnastics Classes.—According to Drew the size of corrective classes should be in inverse ratio to the severity of the conditions to be corrected. Scheduling ten to twelve for thirty minutes and another ten to twelve for a second thirty minutes is preferable to scheduling twenty to twenty-four for an entire hour.⁴ Twenty should be the maximum enrollment in such classes.⁵ Twelve to fifteen is the ideal.

Load for College Classes.—The Society of Physical Directors for College Women suggests the following size for college classes:

² P. Roy Brammell, *Health Work and Physical Education, Bulletin No. 17, Monograph No. 28, Department of Interior, Office of Education, Washington, 1932, p. 87.*

³ John M. Harmon, "Methods of Procedure in the City Comprehensive School Health and Physical Education Surveys," *Supplement to the Research Quarterly of the A.P.E.A.*, March, 1935, p. 61.

⁴ Lillian Drew "Corrective Gymnastics in a Physical Education Program," *American Physical Education Review*, March, 1926, p. 723.

⁵ Harmon, *loc. cit.*

	Desirable Size	Maximum Size
Correctives	10-15	15
Dancing	10-45	45
Gymnastics	40	50
Team Sports	2 teams	3 teams ⁶

Daily Time Allotment.—The developmental needs of children call for many hours of big muscle activity each day. Normal children find this time for themselves when left to their own devices. Home life a generation ago offered many developmental activities which have vanished with the coming of the machine age. The modern school with its home study requirements and heavy extracurricular programs makes inroads on the time formerly given over to physical activity. Today's child is not left to his own instinctive urges: he is robbed of his natural heritage. The schools must guard his rights, protect his play interests, and organize for him activities for his developmental needs. The great rank and file of children of a generation ago had hay lofts, attics, and large play spaces in home yards or nearby pastures in which they could romp and play but for the great masses of children of today these are gone. The school is at serious fault if it does not offer substitutes in facilities and equipment with time allotted for their generous use. Physical education is the one part of the school program which will give the child organic development but this development takes place only as the child has an opportunity to participate vigorously and for long periods of time in big muscle activities. If the school offers this opportunity, health skills, good posture, and endurance will come as a by-product. However, devoting only a few minutes a day for a few days a week to vigorous big muscle activity is not meeting developmental needs: for elementary children the sum total so spent should be four to six hours daily; for secondary school children, three to four hours daily; and for college age, two to three hours daily. The school program cannot possibly supply all this time but it should supply a large share of the daily allotment: beyond that it should do whatever it can to organize the child's out-of-school hours for additional physical activity to supplement the instructional periods.

Length of the Class Periods.—In 1931, thirty-three minutes was found to be the median allotment for a physical education period in the regular four-year high schools and fifty-one minutes the median

⁶ Mabel L. Cummings, "Minimum Essentials in the Organization and Administration of Physical Education for College Women," *American Physical Education Review*, March, 1927, pp. 210-12.

allotment in the reorganized high schools.⁷ For all schools where the class period is less than sixty minutes long the National Education Association recommends the use of the staggered double period for physical education.⁸ Table X shows two types of schedules with this double period of ninety minutes. It permits full use of facilities, one class entering immediately after the previous class is dismissed. It also permits the students leisure for dressing and showers which should not be looked upon as wasted time. If properly supervised, this gives excellent opportunity for student leadership so that the time does not degenerate into "mere fooling around." Within a reasonable time after the class is dismissed the students should report to another class. This plan merely permits a longer period for dressing than is usually allowed in a single period thus eliminating the feeling of hurry which is a mental hygiene hazard. Modern life is geared too high, and the schools contribute largely to this hazard. For those physically below par, the rush and hurry of the school day with its many extracurricular requirements make demands that are too great. The physical education department can ease the day's rush by scheduling sufficient time so that its activities can be carried on in a healthful leisurely manner.

In the use of single periods it is necessary to train students to dress rapidly if reasonable time is to be left for activity. Ten to twelve minutes were sufficient time for girls to take a shower and dress in the days when long full bloomers consisting of three to five yards of woollen suiting, a middy and middy tie (or a blouse and "dickey" with its complicated underarm harness to hold it in place), a special suit of "gym" underwear, hose supporters, long, black cotton hose, "gym" shoes, and a hair ribbon had to be exchanged for another pair of long, cotton hose, high-buttoned or -laced shoes, a union suit (in winter—otherwise a vest and knee-length panties), a girdle that had to be laced, a corset cover, two petticoats, and on top of all of that, a skirt, blouse, separate collar, or neck frill of some sort, belt and, lastly, combs (at one period even "rats") to adjust in long hair. Today's school girl exchanges a one-piece suit and ankle socks for a slip, a one-piece dress, knee-length hose, and oxfords or pumps—she has no long hair to braid, she wears no girdle, and her underwear consists of but two abbreviated garments—but it still takes ten to twelve minutes for her to take a shower and dress. The time spent yesterday on arrangement of long hair and innumerable pieces of wearing apparel is no doubt offset today by the

⁷ Brammell, *op. cit.*, p. 76.

⁸ *Ibid.*, p. 91.

TABLE X

STAGGERED DOUBLE PERIOD

A

FOR SCHOOLS WHERE THE PUPILS GO HOME FOR LUNCH

Sec.	I	II	III	IV	V
1st Period	Dress Hygiene				
2nd Period	Exercise Dress	Dress Hygiene			
3rd Period		Exercise Dress	Dress Hygiene		
4th Period			Exercise Dress		
Noon	RECESS				
5th Period				Dress Hygiene	
6th Period				Exercise Dress	Dress Hygiene
7th Period					Exercise Dress

B

FOR SCHOOLS WHERE THE PUPILS DO NOT GO HOME FOR LUNCH

Sec.	I	II	III	IV	V	VI
1st Period	P.E.					
2nd Period	Double Period	P.E. Double Period				
3rd Period			P.E. Double Period			
4th Period				P.E. Double Period		
Noon	RECESS					
5th Period					P.E. Double Period	
6th Period						P.E. Double Period
7th Period						

Double period of 90 minutes divided into 15 minutes for dressing and roll-call, 15 minutes for hygiene, 45 minutes for class activity, and 15 minutes for shower and dressing. Section IV of B is free the 5th Period for noon recess.

time it takes to adjust curls and manipulate lipstick and rouge so that through the years the requirement seems to remain stationary at twelve minutes.

Weekly Time Allotment.—Most state departments of education set a minimum time requirement for physical education to be given in the public schools. Table XI shows the status of the requirement in various states. Many schools exceed the minimum requirements set by the state departments, some by even more than twice the allotment. A survey made some years ago by the Playground and Recreation Association of America (so-called at that time, now the National Recreation Association) showed the highest requirements of that date to be set by the following cities:

- for elementary schools: Crookston, Minnesota, 415 minutes per week.
- for junior high schools: Des Moines and Detroit, 300 minutes per week.
- for senior high schools: Wichita, Kansas, 300 minutes per week.

Since that survey the Hillsdale Country Day School of Cincinnati reports that its junior high school has a requirement of two forty-five minute periods per day for four days a week and on the fifth day one period of posture work, totaling 405 minutes per week: the senior high school requires one forty-five minute period for three days a week and two such periods for the remaining two days, totaling 315 minutes per week.⁹ The Society of State Directors and the Society of Directors in Colleges jointly recommend five periods a week of 60 minutes each for high school physical education.¹⁰ Ten years ago the Women's Division of the National Amateur Athletic Federation urged that the schools provide one hour daily for play activity to be supplemented by an additional hour daily conducted by the home, churches, clubs or school organizations.¹¹ The White House Conference on Child Health and Protection asked that all schools offer for all grade levels a daily minimum of 30 minutes in physical education.¹² Table XII shows the weekly time allotment in actual operation in the public schools.

In the college field the most common time allotment in physical

⁹ Violet C. Boynton, "Time Allotment," *News Letter* No. 61, New York, National Recreation Association, June, 1933.

¹⁰ J. B. Nash, "Report of the Committee on High School Administrative Standards for the Directors of Physical Education," *Research Quarterly* of the A.P.E.A., May, 1932, pp. 126-29.

¹¹ Mabel Cummings, *Program of Athletics for Girls of Junior High School Age*, Women's Division of National Amateur Athletic Federation, New York, 1926, p. 3.

¹² White House Conference on Child Health and Protection, *White House Conference*, 1930, The Century Company, New York, 1931, p. 177.

TABLE XI

MINIMUM TIME ALLOTMENT REQUIRED IN PHYSICAL EDUCATION
IN VARIOUS STATES *

State	For the Elementary Grades	For the Secondary Grades
Alabama	30 min. daily exclusive of recesses.	Three 45 to 60 min. periods per week of physical education and one of health education.
California	20 min. daily of unbroken time and numerous 2 min. relief periods.	Equivalent of 2 hours a week.
Massachusetts	1 hour daily unless the school day is less than $4\frac{3}{4}$ hours when one recess period is used for physical education instead.	Two 60 min. periods a week of physical education and one of health education.
Missouri	30 min. daily in addition to recesses.	
New York	One 25 min. period daily or two 15 min. periods daily plus four 2 min. relief periods daily.	Equivalent of 2 hours a week instructional periods plus equivalent of 3 hours a week of activity supervised by some organized agency.
Ohio	Equivalent of 2 hours per week or two 45 min. periods supplemented by play before or after school.	100 min. per week—if a class meets for only two 45 min. periods additional time must be spent in after-school exercise periods.
Pennsylvania	18 min. daily plus two 15 min. recess periods all supervised. Upper grades: three 30 min. periods and recess.	Two periods per week of physical education and one of health education; all three periods same length as other school periods.
Texas	30 min. daily plus recess and after school play periods.	120 min. per week with no period less than 30 min.; 30 min. to be spent in health education.
West Virginia	One long instructional period daily and numerous brief relief periods plus supervised recess, before and after school play.	Two 45 min. periods per week.
Virginia		Rural: 25 min. period daily. Urban: three 40 min. periods per week for 1st year and two per week second year if school has but one gymnasium; two 40 min. periods per week all four years if school has two gymnasiums.

* Information procured from the manuals of physical education issued during the period 1931-1935 by the various State Departments of Education.

education today is three hours per week for two years—the same allotment that has been in effect in Wellesley College for over fifty years.

Division of Time in the Use of Facilities.—This is a subject which requires considerable attention in the interest of the girls' work since all too frequently the choicest hours are reserved for the boys. Even though boys and girls are different they are of equal importance. Yet which is usually assigned the most desirable hours of the day for the use of the gymnasiums and the play fields? And the best equipment? If a school decides that it cannot take care of both groups in a physical

TABLE XII

WEEKLY TIME ALLOTMENTS IN OPERATION IN PUBLIC SCHOOLS *

	Elementary Schools		Junior High Schools		Senior High Schools	
	Range of time	Median time	Range of time	Median time	Range of time	Median time
Large cities	30-250 min.	110 min.	60-300 min.	195 min.	100-180 min.	140 min.
Small cities	75-250 min.	118 min.	90-180 min.	117 min.	90-275 min.	125 min.
Towns and rural schools	50-150 min.	100 min.	60-150 min.	107 min.	60-120 min.	80 min.

* Arranged from Laurentine B. Collins, "Curriculum Study for the Public Schools Section of the American Physical Education Association," *Research Quarterly* of A.P.E.A., December, 1934, pp. 114-17.

education program does it provide for the girls rather than for the boys? This question is not designed to imply that such procedure is desirable but observation of conditions in many parts of the country leads one to wonder why there cannot be in the public schools a more equal sharing of educational and recreational advantages by the two sexes.

Table XIII shows a schedule of equal division of the gymnasium between the boys and girls. The lack of assignments shown in the table for the 3:30 period except on Friday no doubt means that the room is used for something other than class work—most probably for intramural sports. In that event do the boys of that school have the gymnasium all four days at this most desirable of all periods of the day or do they share it with the girls?

PHYSICAL EDUCATION SCHEDULES

To prevent under- and over-sized classes and the grouping together of widely distributed age and physical capacity groups, physical education classes should be scheduled before other subjects in the curriculum. Many high schools in all parts of the country follow this procedure.

TABLE XIII

SCHEDULE SHOWING THE ONE SCHOOL GYMNASIUM SHARED EQUALLY BY GIRLS AND BOYS *

Periods.	1	2	3	4	5	6	7	8	9	10
Time.	8:15 9:00	9:00 9:45	10:15 11:00	11:00 11:45	11:45 12:30	12:30 1:15	1:15 2:00	2:00 2:45	2:45 3:30	3:30 4:15
Monday	Boys.	8B 21		7A 41		7B 34			8A 36	
	Girls.		9A 42	7A 50		9A 44		8B 52	9B 35	
Tuesday	Boys.		9A 23			7B 31			9B 29	
	Girls.	9A 33		8B 49			9B 35	7B 28		
Wednesday	Boys.	9B 32		8B 37		9A 28	7B 31		8A 20	8A 36
	Girls.		9A 42		7A 29			7B 28		
Thursday	Boys.	7A 62	9A 23		8B 37		8A 30			
	Girls.			8B 49		9A 44		7A 29	8A 37	
Friday	Boys.	7B 32				9A 28		8B 36		9B 29
	Girls.		9A 33		7A 50		7B 26		8A 37	8A 52

* Cleveland Fairmont Junior High School, from D. Oberteuffer, *Health and Physical Education Series*, Vol. III, Ohio Department of Education, Columbus, 1932, p. 72.

Among them are certain schools of the following cities: Berkeley, the J. Sterling Morton High School of Cicero (a Chicago suburb), Springfield (Massachusetts), Kalamazoo, Albany, St. Paul, Wichita, Newark, Cleveland, and Milwaukee.

Scheduling in the Large School.—The problem of grouping is a simple one in a school with sufficient facilities and staff so that both regular and restricted work can be carried on during each physical

education period. Under such circumstances it makes no difference what hour a student is scheduled since there will be some class scheduled each period to meet her physical capacities. In many of the larger schools there are three to six different activities scheduled each period of the day. This gives a rich program for election or requirement according to classification grouping.

A schedule based on activities election rather than on grade placement¹³ such as in effect in many schools carries the following plan in a senior high school. In 1935-36, 916 girls were enrolled in physical education classes each for five days a week with six women teachers to conduct the work. One hundred fifty-six girls were scheduled each period with all three grades mixed together. Of the regulars, each girl elected for Monday and Tuesday one of three activities offered and for Thursday and Friday, one of three other activities offered: on Wednesday she reported in her grade level for her class sports. The restricted group of all three grades reported to the individual gymnastics class all five days of the week. The six periods of the day duplicated each other in program. By this arrangement it makes no difference what hour is assigned to a student for she has the full range of activities offered, including restricted work, at her disposal each period. The spring schedule was as follows:

<i>Each Period</i> <i>Monday and Tuesday</i>	<i>Each Period</i> <i>Wednesday</i>	<i>Each Period</i> <i>Thursday and Friday</i>
Diving and Swimming 17	Sophomores - Hygiene 54	Swimming 29
Clogging 34	Juniors Sports 42	Track and Field 58
Group Sports 75	Seniors Sports 30	Rhythms 39
Individual Gymnastics 30	Individual Gymnastics 30	Individual Gymnastics 30 ¹⁴

Scheduling in the Small School.—A requirement of two or three periods a week is easier to handle in the small school with limited teaching staff than is a five period assignment. For example the three period a week schedule can be handled as follows: (1) assign each student some one hour throughout the week for her physical education class hour keeping the various grades grouped together, i.e., seventh grade students together, eighth grade together, and so on, or if grades must be grouped for effective class size, group them by nearest grades; (2) according to the findings of the physical examinations and motor capacity tests divide all students of each period into three sections, the "restricted," the "regulars" and the "high physical index" group; (3)

¹³ A desirable procedure when staff and facilities permit.

¹⁴ The figures represent class enrollment.

hold the "regulars" for physical education on Monday, Wednesday, and Friday of the hour assigned and send them to study hall on Tuesday and Thursday; (4) hold the "high index" students for class work on Tuesday and Thursday at the hour assigned giving them advanced work comparable to their higher abilities and for the third hour permit them to elect an after-school sport or leadership work with the "regulars" on one of the other three days, and for the two or three days when they are free on that hour, send them to study hall; (5) change the scheduled hour of the restricted group to conform with the hour when all who are restricted from all other periods can be scheduled in common. For the class work of the "restricted," grade placement is immaterial since the work should be individual, depending in each case upon the type of restriction. School authorities should realize that special schedule consideration is important for these students—so important that consideration for no other subjects should stand in the way of their physical education class work. It should be easy to gain the privilege of changing such schedules when necessary. The earlier the physical examinations are given the earlier will the teacher know which students should be segregated for this work. In fact, the ideal arrangement is to have all examinations completed before the student registers for any subject and then to arrange the physical education work first, since it, unlike other subjects should be arranged in accordance with the physical condition of the pupil.

In North Platte, Nebraska, they schedule physical education on a bi-weekly plan to solve the problems arising from dividing the use of the gymnasium between the boys and girls. The girls have the gymnasium for class use in the mornings from 10:00 to 12:30 daily. Rather than assign three groups for class on Monday, Wednesday and Friday, and three others for Tuesday and Thursday, they alternate the use by weeks so that each class meets five times every two weeks. The student reserves for physical education all five days for the hour selected: one week she goes to physical education class on Monday, Wednesday and Friday and to study hall on Tuesday and Thursday, the alternate week she goes to physical education class on Tuesday and Thursday and to study hall on Monday, Wednesday and Friday.

Physical Education in the School with Only a Part-Time Teacher.
—In many schools where there are not sufficient classes in physical education to warrant the employment of a full-time teacher, the few classes are confined to certain days in the week, i.e., the boys use the facilities on Monday, Wednesday, and Friday and the girls on Tues-

day and Thursday or the boys use the late afternoon periods and the girls the late morning periods. In a school that attempts to equalize advantages between boys and girls these assignments should be alternated by weeks or by terms.

The small town schools, both those with full-time and part-time teachers, could give better service in their physical education departments than most of them now do if they would give serious study to their scheduling problems. The needs can be met by intelligent planning. It is the physical education teacher's duty to do this planning and to point out the solution of the problem to the principal. He is already involved in the schedule difficulties of all other departments and surely would welcome helpful suggestions.

Scheduling in the Rural Community.—Broady of Nebraska says:

The smaller schools are now coming to the seven period day. School begins at 9:00 in the morning and closes at 12:00. However, it takes up before 1:00 and extends somewhat beyond 4:00. This makes it possible to schedule in the afternoon three one-hour periods and one period forty-five minutes in length. During this last period everyone has an opportunity to participate in the intramural program. Other extracurricular activities are planned for the same period during certain days in the week. The schedule just described eliminates the difficulty found in most rural areas brought about by the fact that many children cannot stay after school because they are needed to help with the chores. If school is out for everyone by 4:20 or 4:30 no hardship is imposed on pupils or teachers, and the enriched educational program is unimpaired.¹⁵

Attention is called to the need of scheduling for the physical education teacher one period each day which she can use for health conferences and keeping health data up to date. If the first period in the day is assigned for this it could serve at the same time for morning health inspection work.¹⁶

Scheduling in the Grade School.—If there is no gymnasium to be used by the various grades in rotation, it is a satisfactory plan to have all physical education classes in one school building scheduled at the same time so that the supervisor can see all at work within one hour at a given school. This plan permits of homogeneous grouping

¹⁵ Knute O. Broady, "Is An Adequate Program of Health and Physical Education Feasible in a Small School System?" *Educational Administration and Supervision*, January, 1936, pp. 25-26.

¹⁶ *Ibid.*, p. 25.

from the findings of the examinations and tests, since all who need to be grouped together are available at the same time.

Boys and girls need not be separated until the fifth or sixth grades, and not even then for those activities which they would play together naturally.

For the grades one to three the following schedule is recommended for a weekly allotment of 275 minutes:

1. A 15-minute recess period twice daily.
2. A 15-minute period for instruction in physical education activities during the morning session every day (about 9:30 o'clock).
3. A 5-minute period for relaxation later in the morning session every day (about 11 o'clock).
4. A 5-minute period for health inspection daily at the opening of the morning session. This daily morning inspection should include an inspection of health condition and a health habit inspection.¹⁷

The above schedule places all activity in the morning but the morning session is three hours long while the afternoon session is only two hours long.¹⁸ For grades four to six the following is recommended:

1. A 10-minute period for gymnastics and games during the morning session four days of each week (about 9:30 o'clock).
2. A 30-minute period for instruction (tumbling for boys, folk dancing for girls) one day each week.
3. A 5-minute period for relaxation during the latter part of the morning session every day (about 11 o'clock).
4. A 5-minute period daily for health inspection.¹⁹

For these same grades the Massachusetts State Department of Education²⁰ recommends that if the class room teacher is in charge, the equivalent of one hour of physical education be scheduled daily as follows:

School session 9-12; 1:30-3:30.

Morning

- a. Relaxation period, 9:30-9:35.
- b. Recess, 10:00-10:15.

¹⁷ Ruth Evans, "An Elementary School Program," *Journal of Health and Physical Education*, November, 1930, p. 23.

¹⁸ *Ibid.*, p. 22.

¹⁹ *Ibid.*, p. 23.

²⁰ Commonwealth of Massachusetts, *A Course of Study In Physical Education for Grades IV, V, VI*, Bulletin of Department of Education No. 6, Whole No. 276, Boston, 1934, p. 5.

c. Physical education instruction period, 11:00–11:20.

Afternoon

a. Relaxation period, 2:00–2:05.

b. Recess, 2:30–2:45.

The instruction period is placed midway between recess and noon closing. It should come either then or midway between opening and recess.

The movement for gymnasiums in grade schools with special teachers in charge of the physical education work is spreading. The schedules for schools with such facilities should be made out with great care since the younger children should be given the periods that will break their longer session into two parts as equally divided as it can be arranged.

Schedules for Mixed Classes.—To approximate the real life situation, the progressive schools are offering some physical education work for boys and girls together. The men and women teachers should share these teaching hours so that not only will the boys and girls have opportunity to work together but each will have opportunity to receive some instruction from the opposite sex.

College Schedules.—At college level there is no need to schedule classes by grade placement except as freshmen may need special attention such as has been previously given the upper class students in an orientation or fundamentals course.

From a study made at Oregon State College it is recommended that schedules for college women observe the following: many sections at 10:00 and 11:00 a. m. and 3:00 and 4:00 p. m., many sections of individual sports and few sections of team sports although opportunities for team sports should be given in the intramural hours.²¹ This no doubt reflects the consensus of opinion in the college world.

Special Advice on Schedule Making.—The following suggestions should be observed in making schedules: (1) if the enrollment and facilities are not sufficient to permit a varied program in high school and pupils must be scheduled by grade placement uniting some groups, it is better to unite the two upper classes rather than the two lower ones; (2) if the various lower grades are sent to the playground in two periods rather than in one, grades one, two, and three should be sent

²¹ Elsie Jacobsen Stuhr, "Interests and Abilities as a Basis for Program Planning," *Research Quarterly of A.P.E.A.*, May, 1936, pp. 92-98.

out together and grades four, five and six; (3) the physical education class work should come neither just before nor just after a recess period; (4) the smaller children should be given their class work mid-way of the longest inactive period of the day; (5) in college many activities might be offered twice a week for one and a half hours as well as three times for one hour (archery, restricted work and swimming should not be scheduled for the longer hours although this last suggestion offers excellent opportunity to schedule Tuesday and Thursday one and a half-hour classes with Monday, Wednesday, and Friday one-hour classes); (6) rest classes should be included for the undernourished and individual classes, for the restricted cases; and (7) special classes should be given during the school hours and not before or after school, or at recess, when children should be free for recreational pursuits, having been encouraged and directed in class hour how to use this free time wisely.

SCHEDULE FORMS

In situations where there are a number of teachers to share the use of facilities and equipment a variety of schedules should be drawn up if the department work is to run smoothly. In addition to activities or class schedules there must be drawn up teaching schedules, attendants' schedules, equipment schedules, and facility schedules, and each should be checked against the others to assure perfect coordination. For the outdoor seasons a special schedule will be needed to show the assignment of space for use by each class in unfavorable weather. All of these schedules are necessary for each of the four seasons of the year.

During the opening and closing days of the year when examinations and tests are being given, a different set of schedules will be needed unless this work is carried on within the class hour. In all, there are required twenty to thirty different schedules annually: the head of the department who is meticulous in regard to details in the interest of the smooth running of the work will slight none of them.

Class Schedule Forms.—Class schedules have been discussed above. When they are drawn up for the season, copies should be posted for ready reference for all who are connected with the department either directly or indirectly and, for the best service, they should be posted in two forms, (1) charted by days and hours and (2) listed alphabetically by activities.

TABLE XIV
THE THREE IN ONE SCHEDULE *

Period	Daily	Monday-Tuesday				Wednesday				Thursday-Friday			
		Diving and Inter-Swimming	Begin. Clogging	Group Sports (volley-ball)	Ind. Gym.	Health Ed.	Advanced Clogging	Basketball	Ind. Gym.	Begin. Swimming	Apparatus and Tumbling	Fundamentals of Rhythm	Ind. Gym.
I	A	B 23	C 41	D 54	E 29	B 59	C 26	D 33	E 29	C 38	B 23	D 56	E 29
II	B	A 23	C 48	D 61	E 32	A 64	C 26	D 41	E 32	C 40	A 43	D 59	E 32
III	D	A 25	B 53	C 65	E 33	A 61	C 37	E 41	B 33	C 43	B 54	A 48	E 33
IV	C	A 30	B 31	D 63	E 28	A 48	D 32	B 43	E 28	A 20	B 54	D 52	E 28
V	E	B 23	D 49	A 59	C 25	B 39	D 42	A 49	C 25	D 25	B 61	A 47	C 25
VI	E	B 17	D 38	A 56	C 26	B 40	D 27	A 41	C 26	D 22	B 45	A 52	C 26

A, B, C, D, and E represent 5 instructors—Arabic figures represent enrollment in class

*Courtesy of the Department of Physical Education for Girls, Wichita High School East.

Teachers' Schedule Forms.—An interesting form of schedule showing teacher assignment, pupil load per teacher, and activities schedule all in one is shown in Table XIV. This form of programing with five teachers in charge of four class rooms and an office, each period of the day, gives an easy mathematical formula for schedule planning. The supervision of G. A. A. hours is not indicated on this schedule: it claims from each instructor at least two additional hours each week.

It is not unusual for teachers to have a teaching schedule of six classes daily with one hour of study-room supervision, after-school intramurals, and health conference work thrown in extra for good measure. Such a heavy assignment keeps the teacher's nose close to the grindstone—too close for reserve energy to take personal interest in her pupils, to plan and execute wise testing programs, to give serious attention to lesson planning, and to keep abreast of professional literature and movements. If a teacher is to give her best efforts to her pupils, her schedule must allow leeway for planning her work intelligently and for the conduct of such extracurricular activities in her field as should be a part of the school's educational program (play days, demonstrations, meets, tournaments and health campaigns).²² However, the teacher's personal recreational hours should not be completely jeopardized in order to meet her responsibilities. Every teacher who has after-school responsibilities in contact with pupils should be allowed corresponding time free for desk work during the school day periods.

²² The conduct of extracurricular activities, other than tournaments, has not been discussed in this book for lack of space. Much material on these subjects is available for the assistance of inexperienced teachers and those who seek new ideas. For suggestions of material see M'Cloy's bibliographies published in the October, 1932, and December, 1936, issues of the *Research Quarterly* of the A.P.E.A. It is also advisable to keep in touch with the Woman's Division of the N.A.A.F. It reports frequent news of such activities and is ever ready to give suggestions and advice.

CHAPTER XI

THE PHYSICAL EDUCATION BUDGET

"Those who want fewest things are nearer to the gods."

—SOCRATES

ONE OF THE most difficult problems of departmental management is that of budget making. For the inexperienced it is a real cause for apprehension since teacher training courses offer but meager preparation, if any, for this task. The purpose of a budget is to control expenditures so as to procure from them desired results. This is accomplished through a study of the needs of the group for whom the money is to be spent and by weighing proposed expenditures against estimated income. The making of the budget therefore consists of (1) presenting the needs, (2) estimating their costs, (3) checking the total against the probable income, and (4) adjusting the needs to balance the income.

Money allotted is not wisely spent without such planning yet the average physical education department in the average school flounders about knowing there is some money available from some source for some expenditures but how much and for exactly what is unknown. Under such circumstances whenever teachers ask for present needed supplies and equipment they never know whether they are jeopardizing their chances for meeting the needs of other activities later on. To compel teachers to beg for each article one at a time with no chance for future planning is to treat them like children. Under such treatment they cannot retain their self-respect, shut off as they are from any understanding of their financial status. The organization that does not operate on "an open budget openly arrived at" cannot expect from its constituents cooperation in its expenditures. Left in the dark as to probable allowance teachers can but muddle along: such a procedure breeds dissatisfaction, invites unwise spending, favors those who are the most persistent as beggars, and is in every way uneducational.

The teacher employed in a system where no opportunity is given to plan a budget or to know what amounts may be expended should make every effort to procure a hearing and a decision in regard to a

budget before the school year has progressed too far. In the spring before the school budget is determined, the needs of the department for the coming year should be presented to the superior officer. This list should be presented even though such a report is not requested. It is quite possible that some departments are treated as they are merely because they never speak up and make their wants known at the proper time. No teacher need wait for an invitation to present a proposed budget to meet her departmental needs. The presentation of a business-like statement, even though not requested, is certain to attract the attention of a superior officer, assuring him of the department's desire to plan wisely for the future.

Determining the Needs.—To determine the needs of the coming year, or biennium as the case may be, it is necessary to go through the complete inventory lists of all equipment and supplies used by the department. A careful keeping of inventories is helpful, not only to call to mind the items used, but to give information concerning quantities on hand and their condition. It will be necessary to consult with all workers in the department in procuring complete information.

The first making of a budget presents many questions, the answers to which will not need to be sought a second time, such as the following:

1. Should the budget cover all sports equipment and supplies or only that part used by groups as a whole such as basketballs, baseballs, bats, nets, etc., and not that used individually such as tennis rackets, shin guards, hockey sticks, and so forth? A few schools furnish all equipment, the most furnish all group equipment, some furnish all group equipment and some individual equipment such as all hockey equipment, golf clubs but not balls, tennis balls but not rackets, or the reverse, and some (the few) furnish none. The answer to this question is a matter of school policy and must be answered by conference with superior officers.

2. Is it necessary for the department budget to cover such items of expense as janitor's supplies, electricity, gas, water, fuel, telephone, used by the department? In most schools such items are taken care of in the general maintenance budget and need not be considered in departmental figures except as there may be certain charges incurred because of special departmental requests such as particular cleaning and protective supplies used exclusively by the department. Also if a department has its own telephone the rental is usually charged against its budget. Building

and grounds repairs are not as a rule charged against departments even though they are the ones using those particular facilities.

3. Is it necessary to include salaries in the budget? If the superior officer will accept a statement of proposed salaries, the budget should be made in two sections, one for maintenance and one for salaries.

4. Should hour-pay services such as clerical and pianist services be included in salaries or maintenance? If a budget is prepared in two sections, such services should be included under salaries under a heading "temporary services": if only a maintenance budget is considered they should be included in it under the heading "special services."

5. If there are to be added to the program for the coming year new activities for which special facilities will need to be prepared should that expense be included in the budget? Usually expenses involving facilities are not included in departmental budgets but are carried in a general building fund of the school. However, no department should consider the introduction of a new activity requiring new facilities or involving expenditures on old without first ascertaining from proper authorities whether the facilities may be procured or altered to fit the plans. For conferences upon such matters it is not necessary—indeed it is unwise—to procure estimates to present to the higher authorities for if the venture interests them they would prefer to seek estimates according to their usual procedures.

Obviously a department may not introduce swimming without first building a pool or arranging to rent one: if a request for the school to build one is to be submitted, the request should be accompanied by all the figures at command in regard to the costs of constructing pools in other situations but no estimates, not even informal ones, should be sought by the teacher for the local project. Procuring estimates is the function of higher authorities: premature conversations with business firms may later prove an embarrassment. If a request for rental of a pool elsewhere in the community is under consideration, an estimate of that expense should be procured and submitted with the request. If such a request is granted whether the expense is to be included in the departmental budget or under some general school-fund heading must be decided by the higher authorities.

Preparing the Lists.—With inventory sheets at hand containing the record of the last full inventory, which should have been taken just previous to the work on the budget, lists of all items needing replacements or repairs should be filled out. All new ventures to be undertaken in the coming year, for which equipment and supplies have

never before been listed nor facilities prepared, must be itemized for budget consideration.

The following check form will serve as a reminder of the various items to include in the budget estimates.

BUDGET CHECK FORM

A. Equipment and Supplies.

Item	Supplies (Things that are soon used up and must be replaced.)	Equipment (Things that have a certain permanency.)
1. Class Work As a subheading list each activity to be offered in the program	Such as arrows, balls, music, music-box records --- (go through list of all activities to be offered to determine needs).	Such as goals, clubs, rackets, back stops, piano, victrola, mats, apparatus, etc., listed after each subheading as needed.
2. Dressing, Locker and Shower Rooms	Such as towels, costumes, footbath solutions, soap, etc.	Such as lockers, padlocks, curtains, etc.
3. Educational	Such as posters, chalk, floor markings, etc.	Such as books, pamphlets, charts, magazines, etc.
4. Emergencies	Add 3% of estimated cost of other supplies to be purchased.	Add 3% of estimated cost of other equipment to be purchased.
5. Examination and Tests	Such as tapes, mouth-pieces, special light bulbs, examination cards, appointment cards, posture machine supplies.	Such as spirometer, silhouettegraph, scales, screens, calipers, etc.
6. Intramurals	Such as score books, whistles, arm bands, etc. and supplies for any activities on intramural program not offered for class work.	Such as stop watches, timers, equipment for any activities on intramural program not offered for class work.
7. Health Work	Such as first aid supplies, conference cards, health pamphlets, health cards.	Such as first aid cabinet, health books, cots, cot covers, etc.
8. Janitorial	All supplies needed for physical education work specifically, as disinfectants for showers, ball cleaner, linseed oil, etc.	All janitorial equipment needed for physical education work specifically, and not for general school janitorial work such as special mops, etc.
9. Miscellaneous	Such as chalk, showcard paint, class lap boards, roll call books, freight, drayage, express, etc.	Such as bulletin boards, steel cabinets, etc.

BUDGET CHECK FORM—*Continued*A. Equipment and Supplies.—*Continued*

Item	Supplies	Equipment
10. Office	Such as paper, pencils, thumb-tacks, ink, telephone, postage, telegrams, etc.	Such as files, desks, chairs, typewriters, etc.
11. Play Fields	Such as lime, etc.	Such as marker, goal posts, etc.

B. Miscellaneous

1. Rentals: such as for use of pools, halls, or play spaces owned by other organizations.
2. Repairs: add 5% of entire budget for these emergencies.
3. Special Services: hour-pay expenses such as for operator of a movie camera, pianists, clerical work, marking fields, etc.
4. Traveling Expense: such as for attendance upon professional meetings.
5. Water, heat, light and fuel: if necessary to include this.

If needs mount high in one year for one activity they are sure to be lower than usual for another. The budget maker soon learns that expenses for most activities of the physical education program swing from their lowest to their highest levels in a four- or five-year cycle covering first repairs and then gradually full replacements. By careful planning, each year's budget should carry one-fourth or one-fifth of replacements: the items of large expense should be staggered through a four- or five-year period, concentrating in one direction one year, in a second the next, and so on, not returning to the first activity in a large way for another four or five years. Also the dates for the introduction of new activities should be staggered by years so no one year's budget need carry the heavy initial cost of more than one activity at a time, unless some special funds have been made available.

After the list of needs is completed, it would be well to group them under fewer and different headings: the departmental inventory headings will not be of interest to the budget authorities. The headings used should be those used by the school business office in keeping account of expenditures. The exact classification to be used should be procured from the finance office.

Estimating the Costs.—In figuring estimates it is important to ascertain first if there are channels through which the school can purchase equipment and supplies at reductions of retail costs. The experi-

enced budget maker keeps careful accounts of expenditures and from these past records can figure costs and estimate variations in prices. Catalogs of firms supplying school equipment are valuable guides, especially if there is attached a record of discounts allowed on school and quantity purchases.

Adjusting the Total to Balance the Probable Income.—

After estimates of needs are totaled this total should be checked against the amount of money that may be available for expenditures. If budgets have been in operation, the former budget allowance will serve as a guide: if not, the budget needs must be presented with a guess at probable allowance but this is inefficient for guesswork does not permit wise planning. Under such circumstances the department head should draw up two budgets: one for consideration under the understanding that the school authorities expect the department to function on the same educational level as do other departments of the school, the other to be presented as the minimum budget under which the department *can* function although at a low level. The effective teacher will be prepared to defend the first budget against all arguments designed to defeat it for the advantage of other departments: physical educators must demand their just proportion of school funds.

After the total allowance is determined and has been reported as a definite set amount, the head of the department should readjust the proposed expenditures to fall within the set limits, deciding before the new school year opens where the elimination will be made if any is necessary. The expenditures for the year should be made in accordance with this plan and careful accounts should be kept of all articles purchased and of all money spent.

Sample Budgets.—In a town of 1,600 school children, the physical education budget of \$495 is allocated as follows:

Balls	\$200.00	First aid	\$40.00
Permanent equipment	150.00	Awards	25.00
		Miscellaneous	80.00 ¹

In Evansville, Indiana, the boys' department runs the following budget² over a three-year period for towels and uniforms:

¹ George S. Olsen, "Financing a Physical Education and Athletic Program in a Small City," *Journal of Health and Physical Education*, May, 1934, p. 38.

² Arranged from Mark Wakefield, "Physical Education Class Equipment," *Journal of Health and Physical Education*, October, 1932, p. 38.

Expenditures (3 years)	Income (3 years)
2,000 towels @ \$1.50	\$2.00 per year for 932
per dozen\$ 250.00	boys .....\$5,592.00
Laundry for towels..... 1,500.00	
1,242 suits purchased	
for 1½ enrollment of	
932 boys, @ \$13.00	
per dozen 1,352.00	
100 pair shoes..... 150.00	
<u>\$3,252.00</u>	Expense <u>3,252.00</u>
	Balance <u>\$2,140.00</u>

The balance of \$2,140 above must cover for three years the cost of eight hundred pairs of socks and the weekly laundry of nine hundred thirty-two suits.

One high school that maintains a fine program of physical education for its girls is known to operate on a budget allowance of \$1,000–\$1,100 per year. This serves an enrollment of 1,550 girls and a staff of four teachers, and covers only the class of items such as were presented for the proposed 1937–1938 budget as follows:

Aerial darts	\$12.00	Physical Examinations Equip-	
Archery	82.50	ment (New)	\$125.00
Badminton	8.85	Physical Examinations Sup-	
Baseball	17.20	plies (New)	148.00
Basketball	64.20	Pianist	175.00
Correctives	45.00	Repairs of Equipment and	
Dressing Room Equipment..	25.00	Supplies	15.00
Hockey	39.40	Soccer	24.00
Golf	26.25	Swimming suits, replacements	108.13
Office Supplies	30.00	Table Tennis	12.55
		Towels, replacements	75.00
		Volleyball	43.30
		<u>Total</u>	<u>\$1,078.38</u>

A survey of budgets for physical education for women in colleges,³ exclusive of salaries, showed the following for 1928 (later figures are not available):

State universities averaged \$3,572 with a range of \$1,000–\$6,300.
Large private colleges and private universities averaged _____
with a range of \$850–\$3,000.

State Normal and Agricultural Colleges averaged _____ with
a range of \$2,500–\$3,000.

Small colleges averaged \$443 with a range of \$100–\$590.

³ Information procured by the author from a questionnaire sent to members of the Society of Directors of Physical Education for College Women, March, 1928.

Similar information from high schools is not available: most high school directors report that the girls' departments do not have budgets separate from the boys' department so that it is impossible to give a statement on expenditures for girls' work. Even lists of all items that have been procured during the year would be helpful but apparently high school teachers, as a rule, do not keep even these records.

COST OF PHYSICAL EDUCATION

Cost of Physical Education Compared to That of Other Subjects.—It is a well-known fact that physical education has long been neglected in school budgets. In 1932 the Superintendent of Schools of Philadelphia complained that a school board had spent twenty-five dollars a year per pupil for instruction in Latin but had been unwilling to pay more than five dollars a year per pupil for the health and physical education program.⁴ In regard to the budgetary status of physical education Fowlkes of Wisconsin has said:

As is true of any unit of any organization, a sound budgetary status for physical education is essential for its effective operation. Up to the present, physical education at all school levels has been more or less of an educational orphan so far as adequate financial support is concerned. In the elementary and secondary schools, mongrel funds derived by means of candy sales, school minstrels, and similar sources often represent playground equipment and even essential gymnasium equipment. At the college level the equipment of physical education for men and women alike on the whole is sadly limited and antiquated.⁵

A survey⁶ of costs of subjects in the standard junior and senior high schools of Florida for 1933 conducted by David H. Briggs, Head of Psychology, Maryville College, Tennessee, shows physical and health education to cost less per pupil than any other subject. The average cost per pupil of all subjects was \$6.63 with physical education doing more than its share to keep that average down. A partial list of costs of subjects in this survey is as follows:

military training	\$13.43	English	\$6.46
home economics	9.75	geography	5.71
sociology	8.89	art	5.62
science	7.13	music, physical and health	
history	6.79	education	3.29

⁴ Edwin C. Broome, "Administration of the Health, Physical Education and Recreation Program," *Journal of Health and Physical Education*, April, 1930, p. 20.

⁵ John Guy Fowlkes, "The Organization and Administration of Physical Education," *Journal of Health and Physical Education*, December, 1932, p. 5.

⁶ "Instructional Costs of High School Subjects in Florida for 1932-33," the *Journal of the Florida Education Association*, April, 1933.

Other studies based on costs of instruction also show physical education to be the least expensive subject taught based on the assumption that since salaries cover seventy per cent of the total current expenses they give a fair basis for comparison. Figures from two such studies show the following salary costs⁷ per high school pupil for five periods per week for thirty-eight weeks:

	Sr.H.S.	Jr.H.S.		Sr.H.S.	Jr.H.S.
French	\$15.28	\$10.93	Chemistry	\$11.29	\$ —
Latin	13.38	12.26	Home Economics	10.33	9.33
Physics	12.35	—	Biol. Sciences	10.28	7.81
Mathematics	12.04	8.43	Social Sciences	10.18	9.69
English	11.84	8.80	Commercial	9.99	8.25
Art	11.49	9.46	Physical Educ.	4.66	4.76

Cost of Various Activities.—Little is available on this topic either in professional literature or in such records as may be obtained from the average public school department but, since expenditures for physical activities at college level approximate those of high school under similar situations of enrollment and facilities, such expenditures are used in the discussion which follows.

The figures offered on page 309 represent the average cost per year per pupil covering a four-year period. This length of period is selected since it has been the author's observation that, for those activities which do not run a regular annual standard expense, there seems to be on the whole a four-year swing to cover those years of both heaviest and lightest expenditures. Also a four-year check of enrollment seems to give an accurate count to cover the waves of both heavy and light following for an activity.

These estimates are based on the upkeep and replacement for the quantity of equipment and supplies that is considered necessary in order to teach the activity according to progressive educational procedures. These figures will be smaller in situations where instructors attempt to teach large classes with an inadequate amount of equipment.

Any series of years that make up an average cost of an activity will give a considerably higher figure if that average is weighted by the initial expense of introducing the activity since initial costs overbalance upkeep and replacements. On the other hand the cost of an activity per person is lowered when the equipment is used by larger numbers: although the upkeep is increased by increased use it by no means equals

⁷ Arranged from L. C. Bain, "Teaching Costs for Music and Other Subjects," and Russell V. Morgan, "Analysis of Teaching Costs by Subjects," *Music Supervisors Journal*, October, 1933, pp. 17-20 and 20-22.

COST PER PUPIL PER YEAR TO MAINTAIN CERTAIN ACTIVITIES ⁸

	Counting only enrollment in credit classes	Counting enrollment for intramurals in addition to classes	Special expenses involved other than ordinary keeping up of equipment and supplies.
Archery	2.34	1.56	Includes 3 felt backstops for indoor range.
Baseball	0.37	0.11	
Basketball	0.25	0.10	
Dancing	1.13	—	Including expense of pianists but excluding payments on piano.
Physical Exams	0.03	—	Includes new scales.
Golf	0.52	0.38	Includes new outdoor cage.
Hockey	0.49	—	
Individual			
Gymnastics	0.06	—	Includes \$90 worth of new mats.
Ping Pong	—	0.13	Includes all new equipment except tables.
Soccer	0.25	0.07	
Swimming	0.06	0.05	Counting only equipment but no care of water.
Tennis	0.10	0.10	Includes some new nets and all balls for classes for one year but no upkeep of courts.
Paddle and Deck			
Tennis	0.04	0.01	
Volleyball	0.18	0.06	Includes new nets and all new balls and all new floor-plates for standards.

the amount represented by a proportional purchase of additional equipment. A dozen baseballs will serve six as well as three classes and at almost half the cost per pupil.

It is the length of service and the amount of use within that time which determine the cost of equipment—not the price paid. Equipment purchased and little used is expensive regardless of cost. A twelve-dollar basketball used in squads of ten each by one hundred girls three times a week for ten weeks a year for four years is after all inexpensive equipment at one-tenth cent per girl per use. But a twelve-dollar basketball used by ten girls only, for the same amount of time costs ten times more per girl per use. For this reason the small school labors under a big handicap in figuring the costs of activities.

If it costs the large school \$75 to introduce the game of field hockey for one hundred fifty girls, playing twenty-five an hour in six

⁸ Exclusive of the cost of instruction and facilities but including the cost of furnishing all equipment and supplies after the first initial purchases to introduce the activity have been made except as noted otherwise. The figures cover the period from July, 1932, through June, 1936.

sections during the week, it will also cost the small school \$75 to introduce the game to a lone group of twenty-five players. The basic cost is not reduced by a reduction of numbers using the equipment.

The list of costs above would be materially changed if all activities were used the same number of student-hours. To reduce to such a common denominator would be but guesswork. Upkeep and repairs would mount materially with increased enrollment for an activity like archery while it would be rather stationary for activities such as individual gymnastics and volleyball. But such figures would be fantastic since students never do enroll in all activities in equal numbers: it is an accepted fact that activities such as archery and golf carry a much smaller proportion of the total departmental enrollment than do such activities as tap dancing and volleyball. The department that introduces into its program the activities of lighter enrollment should do so counting the cost: however, the cost is worth counting.

Cost of Intramurals.—In 1926 one hundred and forty colleges reported intramural programs for men with budgets of \$500 to \$600 for schools of less than 1,000 students, of \$1,000 to \$1,500 for schools of enrollment of 1,000 to 2,000 and of \$2,000 to \$11,000 for the larger schools.⁹ These figures are startling to most women physical education teachers whose intramural programs, as a rule, subsist on the "crumbs" from their "main-program table." In the first place even their "main table" is apt to be only the "left-overs" from the "banquet," or perhaps in some cases the "lean fare," prepared for the boys' program. The fine intramural work that is conducted on unbelievably small budgets is a monument to the ability of women physical education teachers.

Fortunately women are not concerned with costs of interscholastic athletics. Figures from the high school of San Jose, California, show that they spent \$902.16 one year for the participation of a few girls in an interscholastic athletic program and in a subsequent year spent only \$186.22 for play days in which 354 girls participated.¹⁰ Such large expenditures for a small amount of participation are certainly unwarranted.

⁹ Editor, "Intramural Athletics in Colleges," *The American Physical Education Review*, March, 1926, p. 708.

¹⁰ Ohio State Committee of Women's Division of National Amateur Athletic Federation, *Girl's Athletics*, Department of Education, State of Ohio, Columbus, 1930, p. 36.

Cost of Certain Items.

1. Archery back-stop for indoor classes of felt $\frac{3}{8}$ inch thick and 9 feet by 15 feet: \$31.50.¹¹
2. "Chalk-talk" board on rollers—blackboard 3 feet 4 inches by 4 feet to use on both sides, on frame and standards 5 feet 3 inches high: \$10.20.
3. Golf practice cage (out-doors) made of lumber frame and wire with canvas back-drop (double cage for 6): \$66.00.
4. Kick boards or flutter boards for swimming, 18 by 36 by 2 inches: 12 for \$15.00.
5. Laundry of towels: \$0.71 per year per pupil if mangled and \$0.50 if fluff dried by the pound: for matron's uniforms, examining robes, shower curtains (not used as shower robes), \$0.13 per year per pupil.¹²
6. Marking fields: \$1.10 per marking for a hockey field using two men one hour each @ 40 cents an hour and 30 cents for slaked lime.
7. Shower curtains: around 80 cents a pair for standard 3- by 6-foot white duck; 95 cents a pair for colored water-repellent pique.
8. Shuffleboard equipment, home-made, 8 discs and 4 cues for \$5.25.
9. Silhouettegraph: \$40 up depending upon the type selected.
10. Tennis back-boards (for indoor practice)—8 by 12 feet: approximately \$12.
11. Tennis court construction: clay courts from \$100 to \$500; asphalt, from \$600 to \$1,500.
12. Towels: \$1.50 per dozen should purchase a good quality Turkish towel 17 inches by 34 inches in size.¹⁴
13. Trophies and awards: "not one cent for tribute."¹⁵

¹¹ When the felt becomes badly worn in the region of the targets, as it soon does, replacements of the felt can be purchased by the yard cut in pieces 3 x 6 feet which can be hung over the worn spots and so lengthen the life of the curtain. Such a piece purchased in September, 1936, cost approximately \$4.00.

¹² Laundry figures obtained from costs averaged over a five-year period from 1931 to 1936.

¹³ Depending upon the local availability of the required construction materials. The most expensively constructed courts require the least expense in upkeep.

¹⁴ Replacement bills for girls are not so large as for boys: unless supervised closely they use more towels than do boys so that they make up in laundry bills what they lack in replacements from rough usage. Some writers state that 20 to 24 months is the life time of a towel at two washings a week: it has been the author's experience with girls that towels last much longer than 24 months even with a small enough supply on hand so that the entire supply passes through the laundry three times a week. Some schools rent towels from a laundry service at a saving not only in money but in time and bother over details.

¹⁵ A good motto in reference to expenditures for awards, trophies, banners, etc. which can easily run into large expense items. The money can purchase much more of educational value if spent on balls, nets, towels, laundry and similar items.

It has been estimated that it costs three dollars an hour per person for a Y. W. C. A. to maintain gymnasium classes and six dollars per person to maintain swimming classes, the estimated cost including all expense of facilities, overhead, instruction, equipment, and so forth.¹⁶

FINANCING

The financing of a department budget does not usually concern a department head since such matters are the care of the school finance committee. Yet schools do overlook physical education and athletics in so many instances in their budget allowance that the departments must conduct money-raising campaigns in their own interests. In those schools that do allow the department a budget it is frequently so meager that additional funds must be raised, especially to cover towels and laundry, since these particular items are not considered legitimate class supplies by some school boards. Various means of departmental financing are discussed below.

The Washington Stamp Plan.—Although this plan has been devised to finance other activities than athletics it is unique and is reproduced here as an outstanding plan.

A PLAN FOR FINANCING

The Stamp Plan—What Is It?

1. It is a plan by which high school students may finance their activities easily, all students getting the benefit of participating in school affairs.

2. A student pays ten cents a week for 36 weeks or \$3.60 a year for which he is admitted to athletic contests, evening entertainments, to all clubs, to all class parties, and all other functions; receives the school paper and the year book without further charge. . . .

3. Upon payment of ten cents each week, an activities stamp is issued to the student, the stamp being attached to a folder which is presented for admission to activities as stated above.

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Administration

1. Let advisers of all activities submit to the principal by May 15, a statement of the amount of money thought necessary to carry on the activity, for the ensuing year.

2. The principal will estimate the amount of money to be received

¹⁶ Miss Mary Wharton, Director of Physical Education at the city Y. W. C. A., Lincoln, Nebraska.

from the general public . . . [and] the number of students who will agree to pay ten cents a week for thirty-six weeks. . . .

3. These estimates should be placed before the faculty for its information and approval. . . .

4. In the homerooms or in all first period classes and the first period study a student leader aided by the teacher should present the matter to students and ask them to sign pledge cards saying they will contribute ten cents a week for thirty-six weeks. If enough sign, the plan is adopted. Let the students understand it is their business and the principal and teachers are willing to help.

5. If the plan is adopted get a stamp folder made out of durable, flexible cardboard with place for student's name, a number, and squares for thirty-six stamps. Special activities stamps can be obtained at very low cost.

6. Have a student finance committee handle distribution of stamps to rooms and a room representative sell the stamps to students, collect the money, and turn it into the school office or to a treasurer issuing proper receipts in duplicate for all money received. The principal may appoint a teacher to supervise the details of handling stamps and money, but the principal must exercise general supervision over the whole. Let students do the work under supervision. . . . It is well to sell stamps on Monday of each week.

7. Be on the alert to prevent students from becoming delinquent.

Possible Budget in a School of 1,150 Students

Receipts

800 students at \$3.60	\$2,880
Football, adult receipts, \$50 a game, 5 games	250
Basketball adult receipts, \$20 a game, 5 games	100
Evening entertainments	300
Newspaper advertising	1,000
Miscellaneous	150
	<u>\$4,680</u>

Disbursements

Athletics	\$1,850
School paper	1,350
Evening entertainments	450
Miscellaneous expenses	250
Class parties	100
	<u>\$4,000</u> ¹⁷

Under the above plan, the department of intramural sports for girls must present its budget of expenditures estimated for the coming

¹⁷ State of Washington, *Health and Physical Education, A Program for High School Boys and Girls*, State Department of Education, Olympia, 1934, pp. 35-37.

year and procure its acceptance by the finance committee. The schools that have used this plan claim the following advantages: (1) practically all students participate in school activities thus taking a greater interest in the school; (2) savings to the student is great since \$3.60 now pays class dues, subscription to paper, annual, admissions to games and debates, etc., which formerly cost \$8.75; (3) no necessity for drives for funds or support of projects; and (4) cost is spread throughout year instead of accruing at the opening, as of old.¹⁸

Fees.—There is no uniformity in the use of fees. Special fees in use in certain schools are listed on page 315.¹⁹

Rentals.—Some schools make a little money on rental of the gymnasium which, although it most probably goes into a general fund, does help the general school budget from which the physical education budget is derived. In Ohio, thirty-four schools charge from \$4.00 to \$6.00 for this purpose and thirty charge from \$10.00 to \$15.00.²⁰

The Girls' Athletic Association and the physical education department of the senior high school of Lincoln, Nebraska, own sweat shirts which they loan to the students for outdoor use. Some schools own the departmental regulation padlocks which are required, renting them for seventy-five cents a term and paying a fifty-cent refund when they are returned. The difference of twenty-five cents soon more than pays for the initial cost and later replacements. At the same time all locks are uniform so the department is content and the fee is less than the cost of a lock so the student is satisfied.

Miscellaneous Sources of Income.—In some schools the girls sell candy, apples, etc., in an effort to raise money to finance their sports program. In others they put on shows, rummage sales, and benefits of all kinds. If athletics are worthy of recognition in the educational program they surely are worthy of recognition in the educational budget: students and teachers should not be forced to resort to these methods except to cover emergency needs.

Since a Cleveland judge ruled in 1933 against the sale of accessories by schools, many schools have been deprived of their custom of handling suits, taps for tap dancing, bathing caps, shoes, etc.: handling

¹⁸ State of Washington, *loc. cit.*

¹⁹ Most of the information has been procured from conversation with the directors of the departments: some from a survey made by Miss Mary Gross, Director of Physical Education for Women, University of Washington.

²⁰ A. W. Shields and T. C. Holy, "Auditorium-Gymnasium Facilities in 513 Ohio Schools," *News Letter* No. 48, National Physical Education Service, National Recreation Association, New York, March, 1932, p. 7.

Special Fees		
<i>Public Schools</i>		
Detroit ²¹	5 cents a semester	for use of towels
Evansville, Indiana ²²	\$1.00 a semester	for use of towels and suits.
Oak Park, Illinois	75 cents a semester	for use of towels and suits
Maywood, Illinois	25 cents a semester	for use of tank suit.
Maywood, Illinois	25 cents a semester	for use of towels.
<i>Colleges</i>		
Practically all	25 cents a semester	for rental of locker or tote basket.
Private schools as a whole	\$2.50 a semester per class	for instruction and use of class equipment and towels.
State schools as a whole	\$2.00 a semester per class	for instruction and use of class equipment and towels.
De Pauw ²³	\$11.00 payable at matriculation	for use of facilities, suits and towels as long as enrolled.
Smith College	\$5.00 a course	for outdoor activities.
Smith College	\$30.00-\$35.00 a season	for riding class.
University of Vermont	\$1.00 an hour	for riding class.
University of California and University of Oregon	\$10.00 payable at matriculation in addition to fee paid for class instruction	for use of suits, lockers and towels and equipment as long as enrolled.
University of Nebraska	\$1.00 a season in addition to class fee	for archery class.
University of Nebraska	\$2.00 a season in addition to class fee	for bowling class.
University of Texas	\$1.00 per semester	for use of tank suits.

these at cost merely as a service to students is forbidden. The sale of candy by student groups is also under injunction by the Cleveland judge and, just as well, since it contributes nothing to the health of the students and is, therefore, a doubtful practice for a physical education de-

²¹ Mimeographed material from Department of Instruction, Health Education, Detroit, December, 20, 1935.

²² Wakefield, *loc. cit.*

²³ Lloyd L. Messersmith, "Administration of a Gymnasium Box-Locker Plan," *Journal of Health and Physical Education*, September, 1933, p. 28.

partment. Apples and milk would be more appropriate sales articles to sponsor.

It is an unwise procedure to force students and teachers to put on shows to finance a part of their physical education program. At such times educational work is at a standstill and the regular routine is broken. Money paid out for admissions to these shows might better be donated outright and made immediately available for necessary purchases, thus saving countless trying hours of rehearsals and the jeopardizing of the health of both teachers and students through the nervous strain and excitement which invariably accompanies such ventures.

Division of Board of Education Support.—It has been agreed by a jury of experts that in those schools where health, interscholastic athletics, and physical education expenditures are all grouped by the board into one budget that twelve per cent should go to interscholastic athletics, forty per cent to school health, and forty-eight per cent to the physical education program: this forty-eight per cent should be divided equally between the girls' and boys' programs unless there is a predominantly greater number of one than the other, in which case it should be prorated.²⁴ Estimates from one board of education shows an expenditure of \$10.00 a year per pupil for school health work.²⁵

PURCHASING

In most situations the business office attends to the actual purchasing but it procures each article only on order from the department, the order giving description, quantity and quality desired, and an estimate of the price to be spent, in some instances suggesting the dealer. The purchasing agent checks the order against the treasurer's records of the budget accounts in question and if the funds are available makes the purchase: if not available he notifies the person submitting the order. As a rule this is unnecessary for the head of the department has been notified once a month by the treasurer's office of the current status of its funds and has planned all purchases accordingly.

In other situations, upon receipt of a final budget to meet the funds allowed, the purchasing agent awaits no special orders but goes ahead

²⁴ John M. Harmon, "Methods of Procedure in the City Comprehensive School Health and Physical Education Surveys," *Supplement to Research Quarterly of A.P.E.A.*, March, 1935, p. 58.

²⁵ National Physical Education Service, *News Letter* No. 88, National Recreation Association, September, 1935, p. 10.

and orders all items on the list: some agents call for specifications of certain items but others do not bother to consult the physical education teacher with the result that much money is unwisely spent. A purchasing agent or committee cannot possibly know the details to consider in purchasing specialized articles as can the person who is an expert on the subject. To guide the agent who likes to go ahead "on his own," the department must not only submit lists of items to be purchased but also detailed specifications of each item with names of dealers in the event the products of certain dealers are the "best buy." The lowest bids are not always safe guides to purchasing.

Rules for Purchasing.

1. Remember that "cheapest is the dearest."
2. Put all orders in writing even though not required to use a set form.
3. Put in writing all claims for delivery of damaged and inferior quality of equipment.
4. Expect the merchant to make at least a 5 per cent profit. He is entitled to at least that much.
5. Trade with local dealers whenever possible.
6. Do not accept gifts or favors from dealers; never permit yourself to be under obligations to any firm.
7. Never profit personally on anything you order as a teacher.
8. Place orders two or three months before the items are needed.
9. State the date goods are to be delivered.

Original Purchases.—An estimate on replacements is easy to make in comparison to an estimate for original purchases. The most difficult items are discussed below.

Towels.—Some schools keep in stock two towels per pupil: replacements are not so heavy under such circumstances. Others maintain a supply of twice the peak load of the heaviest day. Some authorities call for three times the peak load but the lesser amount can be satisfactory with careful planning of laundry schedules. Schools handicapped by lack of money to make a large original purchase can get along on a small number to start with and can add to the supply a little each year until in a few years there will be a comfortable reserve.

Costumes.—The selection of a dealer for costumes is a difficult matter especially in schools supported by public taxes, where pressure is brought to bear from many angles to force decisions in favor of certain firms: especially keen is the competition between gymnastic outfitters. To divide the patronage in this article makes a difficult problem

for the department for no two firms deal in exactly the same specifications and, as soon as there are permitted slight variations, the students find all manner of cheap imitations from "cut-rate" firms dealing with inferior goods and demanding the right to substitute their brand of variation.

The city of Detroit meets this problem by issuing a two-paged typed list of specifications throwing the matter open to all who are interested to offer bids on the stated specifications. The lowest bidder is chosen and no variations are accepted. This is a most disinterested manner of dealing with the problem—one that can be highly endorsed. (Specifications are discussed in Chapter XIII.)

A survey of costumes used by both high schools and colleges revealed the fact that the high schools are the most economical buyers. In the high schools the lowest priced costumes are purchased by the schools in the cities of the largest population and the highest priced in the towns of the smallest population.²⁶ This may be due to the fact that in the large high schools there are trained physical education teachers who judge well what to order, while in the small town schools, costumes are selected by a man coach or by the girls themselves, neither experienced in the selection of girls' athletic garments. Since prices fluctuate it is not wise to mention figures as a basis of consideration for even a few months hence. Each year, specifications should be presented to reliable firms with a request for a bid and on current prices for the quality and quantity desired.

In ordering costumes for both high school and college age the following chart should cover the ordinary needs as to quantities and sizes:

2% of the order in size 26	2% in all
5% of the order in each of sizes 28, 30, 42, 44.....	20% in all
10% of the order in each of sizes 32 and 40.....	20% in all
12% of the order in size 34.....	12% in all
23% of the order in each of sizes 36 and 38.....	46% in all
	100%

Schools that own the costumes and rent them to students should figure the supply as they figure for towels, unless they check the suits out at the first of the week and collect them for the laundry only at the close, under which circumstances they need to carry but a very small reserve for emergency replacements. One and one-third times the number to be outfitted is a standard estimate of quantity.

²⁶ Mabel Lee, "A Survey of Athletic and Gymnastic Costumes Used by American Girls and Women," *Research Quarterly* of A.P.E.A., March, 1932, p. 46

Tank Suits.—The University of Texas keeps a supply of 520 suits on hand to take care of a registration of 300 in swimming classes and an indefinite enrollment in recreational swimming with a sending of the suits to the laundry daily.

In ordering tank suits the following chart based on an order of 500 is suggested, column A referring to the number to purchase in each size if to be used for both children and adults and column B if to be used only for senior high school and college age:

Size	A	B	Size	A	B
22	5	0	38	125	145
24	5	0	40	45	40
26	6	0	42	25	10
28	20	5	44	13	8
30	20	10	46	9	6
32	45	20	48	4	4
34	60	100	50	2	2
36	115	150		500	500

Replacements will be necessary for about every 100 to 135 wearings of a suit. The Department of Physical Education for Women of the University of Texas finds that 115 sterilizations is the usual life time of a tank suit.²⁷ A high school department with several years of experience in administering a pool finds that it must keep a supply of 415 tank suits on hand to accommodate those who will use the pool from a total school enrollment of 1,050 girls.

²⁷ Personal letter to author.

CHAPTER XII

DEPARTMENTAL RULES AND POLICIES

"In effect, to follow, not to force, the public inclination, to give a direction, a form, a technical dress, and a specific sanction, to the general sense of the community, is the true end of legislation."

—BURKE

FOR THE SMOOTH running of an organization rules are necessary. They are also needed for the protection of persons and property and to give direction to departmental efforts. They should not be blindly set up in imitation of those in force in other situations but should be adapted to fit the local conditions. The larger the number of persons to handle, the more important it is to have well-defined rules to avoid confusion and misunderstandings. Harmonious work in groups can exist only through regulations "as a poem that strikes its metre at every step not to be silenced by its rigid regulations, but to give expression every moment to the inner freedom of its harmony."¹

PRELIMINARIES TO CLASS WORK

The Examination Requirement.—There should be a rule requiring medical and physical examinations to be taken by all students except those with religious scruples against such examinations: these students should be released from the requirement only upon the presentation of a written petition for excuse. However, those who are so excused should be notified that because of lack of record of their condition they may not take part in certain competitive sports.

Deferments and Permanent Excuses.—If physical education is a requirement the granting of a permanent excuse should be a rare occurrence, permissible only for those who are disabled beyond all possibilities of entering any form of activity which the program might offer. It is the general belief that "not every pupil can participate in every part of the program, *but every pupil can participate in some physi-*

¹ Tagore, *Sādhanā—The Realization of Life*, The MacMillan Company, New York, 1915, p. 90.

cal education activity." ² Ordinarily such children as cannot participate in some form of physical activity attend special schools where their physical education work, as well as all other work, is adjusted to their special needs.

The granting of permission to defer the work until later years should also be an unusual procedure applicable only to those who are temporarily disabled or handicapped by heavy outside-work responsibilities of such a nature that participation in physical activities would be a detriment rather than a help for the time being. As a rule physical education is the one subject these students should not defer since they need supervised exercise to offset the long confining hours of their heavy class and work schedules: it would be better for their health to defer some class-room subject instead.

Many requests for deferments mean failure to interest the student body in the physical education program. Many deferments granted are an admission of inability to serve. Since physical education has changed its emphasis from formal to recreational activities, fewer students desire to be excused from the requirement. The requests for excuse and the pressure brought to bear upon the administration by parents who wished to coddle their children were so frequent a couple of decades ago as to be the pet aversion of physical education teachers: this student and parental practice has now practically disappeared in those schools with a progressive program.

Mental Hygiene Involved in Deferments.—The schools that offer physical training to all classes of students is prepared to cope with two major forms of poor mental hygiene which exist among students: one form is a pretense of invalidism maintained by some students in order to avoid participation in active exercise and by others in order to avoid conforming to the rules which have been formulated for the majority; the other form is an honest but unfounded belief on the part of some students in their inability to mingle with the average in physical activity—a belief acquired at the time of actual temporary incapacity but extended beyond the time of recovery. For the sake of these pseudo-invalids, both the insincere and the sincere, there should be special physical education work to offset the need of deferments so that the one group can be disciplined for the sake of both mental hygiene and character development and the other can be protected and at the same time directed into a mental set for positive health. A teacher with

² Women's Division of National Amateur Athletic Federation, *News Letter* No. 21, New York, p. 22.

tact as well as persistence can correct the poor mental hygiene of these students.

When Deferments Are Advisable.—The school that is not prepared to take effective care of students needing special attention should employ a system of deferments: such children should not be held, receiving no benefit but possibly harm from being thrown into physical education work with the general body of students. However, the schools that do not make provision for the physical education of these special children as well as for the physically fit are ignoring the tenets of democracy which proclaim for *all* equal educational opportunities.

If any students are released from physical education class work it should be those who are the most physically fit and the best trained in physical skills. Such persons are prepared to take good care of themselves and do not need the teacher's attention except for instruction in skills not yet acquired. However, it is an ignoring of responsibility to excuse those who are motor morons, those who have not yet acquired skills for the wise use of leisure, and those whose poor physical condition could be improved by physical education.

Deferments are frequently granted, and justly so, when with temporary ill health a student wishes to put off the work until her health is improved so that she might engage in active sports later rather than take individual gymnastics for the present. Such cases are those of recent operations and recovery from recent illness (conditions that are most obviously only temporary) and cases of temporary employment for self-support.

Building Up an Acceptance of a Policy Against Deferments.—When special work for the physically disabled is offered in a school for the first time it takes some time to educate the students, their parents, their family physicians, and even the other teachers in the school in regard to the purpose and possibilities of such work and to an acceptance of the discontinuance of deferments. Many conferences must be held with all these groups, and much tact and patience must be employed. As the students benefit from the work all who are skeptical will capitulate except those who wish to use pretended illness as an excuse to escape requirements. Such students show quick irritation whenever a demand for a deferment is refused and questions are asked concerning the nature of their illness. Those who actually are physically below standard welcome a frank discussion of their condition and a consideration of means of improving it, although they are not always pleased at first to be held for special work.

Many is the battle the author has fought for the character training of students who have demanded deferments on false grounds: some battles lost but most of them won! And usually won in every sense of the word since most of the students so held (even the parents and physicians of many) have later expressed appreciation of the personal attention accorded them in the individual classes which, in spite of their early disapproval, was of great value to them. One case comes to mind of a cripple who requested a reprieve. At first she was very indignant when her request was denied and it was suggested that she should take individual work. In her amazement she declared that she could not possibly be expected to take physical education: she felt that she should be set apart from the other students on account of her disability. Sensing that such an attitude on her part might readily ruin her life, it was desired to teach her that she should make every effort to build around her defect a life which would be as normal as possible, and that the physical education department was prepared to help her and so desired to hold her for the requirement. After a struggle she stubbornly gave in to registration in a special class. The department was severely criticized even by other teachers for its refusal to give a crippled girl a deferment. Reluctantly and, at first, in bad spirit she undertook the work prescribed for her: gradually she realized that it was helping her, and from that point on she completely changed her attitude. When her two years of required work were completed she asked for permission to return for additional work and she was permitted to register for two extra years of elective credit. The exercises given her were checked by an orthopedic surgeon connected with the school who was interested in seeing what physical education could do for this particular case. After a while the department was able to put her in touch with an agency that provided the operation which she needed but could not afford. At first she was seriously handicapped by her crippled condition: gradually through her supervised exercises she acquired muscular strength so that she finally was able to exchange her crutches for a cane. Before graduation she sought advice in regard to daily exercises which she could take at home in order to keep in condition when she no longer belonged to a gymnasium class. Some years after graduation she sent word to the department that she had kept up her exercises and was able at last to get about almost normally with the slight help of a cane and that, almost free of her handicap, she had been able to procure a good position in which she was very happy: she wanted the physical education department to know that she would never in all her life cease to be

grateful for what they had done for her. There is not a doubt but that the struggle with her that day when she demanded a release from physical education work was the turning point in her life. The satisfaction of having helped one student who seemed doomed to a life of frustration to build her life anew is reward well worth any struggle. This case is an extreme example but rewards of this nature are the constant experiences of teachers who handle the special reconditioning work of the physically handicapped.

Such work should be offered in every school, for the sake of those who cannot take the physical activities of the average student. It should be under the guidance of the medical profession and with such guidance available deferments from this work should not be granted.

Some students attempt to take advantage of ill health or employment conditions to gain a succession of deferments that will ultimately end in a permanent excuse for at least a part of the requirement if not at all. Dislike of taking physical education, on the part of a few students, is more fancied than real, having been passed on by some few students who have not liked it and have prejudiced incoming freshmen against it. When a student can find no satisfaction from engaging in any of the many recreational activities offered by a modern physical education department, there is something wrong with that student's outlook on life.

Rules for Consideration of Requests for Deferments.

1. Do not consider any request until the student has had both medical and physical examinations so that you decide the case knowing the needs of the student.
2. In case of request for deferment because of employment do not decide the case until you have a written statement from the employer as to the nature of the work and hours and days of employment. This information should supplement the examination findings. The decision should be made with all three sets of information at hand for consideration.
3. If a deferment is granted require the student to report at certain stated times for a check-up on health conditions.
4. Report the deferment in writing to the principal, registrar, and dean so they will know what students have been granted special favor. State the reason for deferment so that, if it is for health conditions, the other teachers will know to guard these students and, if for crowded schedule conditions, they will know how to protect their schedules in other ways.

5. Make arrangements with the dean or the proper school officer to see that all who are deferred because of poor health conditions are not permitted to enter extracurricular activities which would make too great demands upon their physical capacity. The pretenders taken seriously are thus disarmed: the legitimate cases are accorded the protection they need.

In one college all who are deferred from physical education because of poor health conditions are refused permission to attend dances other than to go for the early hours only and then only as a spectator. Family physicians who have been urged by patients who pretend poor condition to write letters stating that they are in ill health and should therefore be excused from physical education have frequently been embarrassed by later requests from these same patients to write a second letter canceling the first after they have learned that the pretense of ill health, meant for the physical education department only, has been taken seriously by the dean and other teachers. Under such circumstances many physicians refuse to have anything more to do with the matter, leaving the student to "take her medicine": it is excellent discipline of real educational value!

Notices concerning the department policy in regard to deferments should be posted or in some way be made known to the students.

Accessories to Deferments.—Some departments assign hygiene reading as a substitute for class work but such an activity cannot serve as a legitimate substitute for body training or physical recreation. If a teacher feels that the student would profit by certain hygiene reading it should be made clear that the assignment is an accessory to the excuse and not a substitute for the class work which must be made up later. An excellent accessory to an excuse is the requirement to report to the department at certain stated times for conference and check-up on physical condition. This is a good rule for those who are granted an excuse on grounds of physical disability since they do need attention; it is also good for that occasional student who has procured a deferment under false pretenses.

There are times when it is wise for the physical director to confer such favors even when she knows they are requested on false grounds, taking at their word the student and those who might urge the deferment in her behalf. Seeming to believe thoroughly in the student's disability, it is well to give her so much personal attention in daily appointments for conferences and checks on social life "to protect her health"

that she will soon ask for release disclaiming the pretended physical disability in preference for the life of a regular student. Such lessons are valuable to "spoiled" children: also valuable to that class of adults, mostly parents of "spoiled" children, who attempt to bring unpleasant pressure to bear on any teachers who deny their children any whim. Every teacher should feel it her serious responsibility in the education of all students with whom she comes in contact to go to whatever ex-

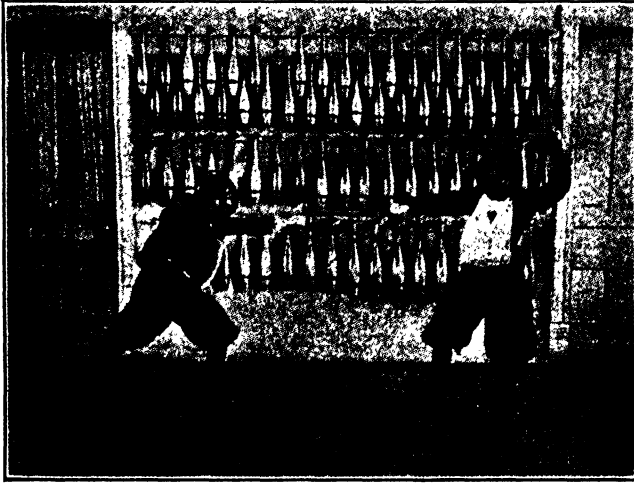


FIG. 42.—The "daring" costume of 1892. Photograph of Dorothy Canfield (the present Mrs. Dorothy Canfield Fisher) and a friend, taken at the University of Nebraska when her father as Chancellor won the reputation of being a radical by bringing to the university a gymnasium instructor for the women students and requiring special gymnastic costumes. In this "bold" undertaking he was abetted by the military instructor, Lieutenant John J. Pershing. (See Mark Sullivan, *Our Times*, Vol II, *America Finding Herself*, Charles Scribner's Sons, New York, 1927, pp. 191-192. Photograph reproduced by courtesy of Mrs. Fisher.)

treme of inconvenience to herself as may be necessary to place all dissimulators in such positions that they learn by personal unpleasant experience that honesty is the best policy.

Costume Requirements.—A standard costume for the various activities should be adopted, otherwise some students will wear more expensive garments than are necessary to the disadvantage of those who cannot afford similar quality, and others will wear such cheap attire

that it will be inadequate for class use. The adoption of a regulation suit is an easy matter for those schools that furnish them for the students either free of charge or for rental. Even though difficult at times to enforce, most schools do set a standard and require the students to conform to it in their own purchasing.

The type of costume worn has a close relation to the educational aspects of the activity for which it is used: from the very start it fixes



FIG. 43.—The "conservative" costume of 1937. This picture was taken on the exact spot of that taken forty-five years earlier as shown in Figure 42. Note not only the change in costumes but the change in wall treatment, indicating the complete change in trends in activity.

the atmosphere of the sport.³ (Specifications for costumes are discussed in Chapter XIII but types of garments needed and their style are discussed in the following paragraphs.)

The All-Round Sports Costume.—By 1930 the woolen bloomers and cotton midy in common use for the two previous decades had been almost completely replaced by the all-cotton wash suit in either a one-piece or two-piece style, preferably of green or blue Indian head or similar material. Although shorts had come into vogue in a few schools by then, they have not even yet achieved widespread use in educational circles in spite of the trend towards their use for sports in social circles. Just why an adult woman thinks it appropriate to appear publicly on tennis courts and golf links in such undress as is frequently seen is a

³ Mabel Lee, "Sports and Games—A Dynamic Educational Force," *Recreation*, July, 1929.

puzzle to many participants in these sports who find sufficient freedom in conventional attire.

In matter of dress the educator should be conservative in the styles she selects for a requirement for all students. Those students who wish to keep up with the latest trends in sports styles may do so in their recreational activities; the majority of students and their parents will be satisfied with moderation. (Figs. 42-45.)

Conferences with representatives of gymnastic costume manufacturers⁴ will reveal the trends in school styles and prices as these dealers are in constant touch with the situation all over the country.

Although the 1930 survey found the one-piece suit to be the most used by all groups there is at the present a trend in colleges toward the two-piece suit since it is better adapted to the maturer figure of the older girl. The tails of the blouses are being made shorter and less bulky. The teddy-fastening finish to hold the shirt in place and to make it do double duty as blouse and underwear is still popular. The most common regulation is that of bloomers or conservative shorts of a color (green, tan, and blue being most popular) and a white blouse. Frequently a sleeveless jersey to match the bloomers is added but it is not an essential and it increases the expense. For high schools the one-piece suit is still the more popular and it is the less expensive. Many departments would like to permit students to attend classes of archery, tennis, golf, and like activities in such costumes as are ordinarily worn in recreational situations in these sports but students' unwillingness to cooperate by wearing appropriate dress makes it difficult to follow such a policy.

The Dance Costume.—Although most public schools require one standard gymnasium costume for all activities of the gymnasium and playing fields, many high schools, and practically all colleges, have an additional requirement for classes in creative dancing. With the introduction in the schools of the so-called "modern dance," dance costumes have been so completely revolutionized that those of the 1930 survey seem almost mid-Victorian. To accent form and line of movement, the costumes are of dark colors, high necked and frequently long sleeved, and the skirts and leg coverings are as abbreviated as possible except for an occasional mood when flowing draperies sweep the floor. Surely this mode of 1937 is a transitional one: it borders too closely on the grotesque to expect any degree of permanence. (Fig. 46.)

⁴ Reliable and well known firms advertise in the official organ of the profession, *The Journal of Health and Physical Education*.

Bathing Suits.—Since the 1930 survey, bathing suits for school use have followed the trends of the time and are cut quite low in the



FIG. 44.—*Typical one-piece costumes in use in 1937.*

back and under-arm and are shorter in leg length than heretofore. With the introduction of special treatment of woolen materials to protect against the shedding of lint and the recent improvement in dyes, there



FIG. 45.—*Typical two-piece costume in use in 1937*

is no longer any excuse for the adoption of a regulation suit of the ugly gray cotton uniform of the past decades. Gay colors, pleasing styles, and materials that hold their shape are now practical and available.

Therapeutic Costumes.—Some departments have special costumes for individual gymnastics classes so designed that the teacher can have a good view of the pupil's back while she is at work. The present-day bathing suit with its low-cut back serves this purpose very well and is so used in many schools and colleges. At the University of Wisconsin those who so desire may wear a "halter" instead of the regulation shirt slit open in the back or they may wear a bathing suit.⁵

Instructors' Costumes.—Most schools require no special costume of the physical education instructors other than that of the unwritten



FIG. 46.—*Typical costumes in use for the modern dance in 1937.*

law that it be conservative and beyond reproach in every way in regard to neatness. It is customary for a teacher to wear a costume different from that worn by the students so that she is recognized at a glance as the leader. The following regulations concerning teachers' uniforms are an excellent guide:

for orthopedic classes, white uniform.

for swimming classes, tank suit, clogs, and cape or coolie coat to wear to and from the pool.

for clogging, folk dancing, appraisal and fundamentals, and most sports classes, the regulation gymnasium or sports costume as adopted by the group of teachers but the color to individual taste.

⁵ Dr. Helen Denniston writes November 24, 1936, that they like the "halters" very much for this purpose.

for golf, tennis, archery classes, suitable sports dress and low-heeled sports shoes.

no gymnasium suits or shoes are to be worn in any part of the building or plant other than Physical Education part.⁶

Outer Garments for Cold Weather.—Many schools have a standard requirement for out-of-door use while others requiring some special garment to be stored at the gymnasium for ready use, make no specifications concerning its style, quality, or colors: still other schools have no requirement leaving it to the student's own pleasure to have a special wrap or none, using her street coat when occasion demands additional protection. This last is ineffective since few street coats give proper freedom for sports and, since sports use is hard on the coats, it is economy in the long run for students to have a special sports wrap.

Another extra for fall and winter outdoor classes is a garment for leg protection. The day of long woolen bloomers and long hose is past. Today's student wears ankle socks and cotton bloomers, knickers or shorts, which, even if cut thigh length, are pulled up to crotch length. This lack of protection from the cold demands special leg covering in sharp weather. Some schools have adopted sweatpants which in their close resemblance to the heavy winter underwear of pioneer days are most unattractive. Most ski suits now in style for winter sports are feminine in appearance and should solve the problem if not prohibitive in price.

Accessories.—Bathing caps need not conform to a regulation unless a school wishes to use one certain color to indicate beginners, another for intermediate swimmers, and still another for advanced swimmers and life savers. This is a splendid policy for all situations where the various levels of swimmers are mixed as in recreational hours.

Bath shoes should be a requirement but the style of shoe might well be optional whether a rubber bathing shoe, a rubber or wooden clog, a grass Japanese sandal, or a fiber fabric which can be washed. There is on the market a paper shoe which can be vended from a slot-machine and destroyed after use; this is, however, rather expensive. The most satisfactory is probably the ordinary sandal used at bathing beaches, which the student may use during vacations as well as for school purposes. Especially in connection with the pool should bath shoes be required. They should be worn at all times when the street shoes are removed, including the time in the shower and on the way to

⁶ Esther Sherman, *Health Education: A Program for Girls in Secondary Schools*, Detroit, Board of Education, 1929, p. 162.

the footbath at the pool entrance, where they should be neatly placed on a shelf or along the wall during class period, to be put on again as soon as the class work is over and before returning to the dressing room. This is the only safe way to protect from athlete's foot.

Ankle socks are an almost universal requirement. They are so inexpensive that no teacher need hesitate to require two special pairs, one to be kept at the gymnasium while the other is at home being washed. Their use eliminates the unhygienic garter and the unesthetic hiatus usually seen between the bloomer leg and the stocking top when long hose are used in these days of short bloomer legs. Some schools require the use of extra-long hose for outdoor use in cold weather. Special hose of heavy ribbing in black, white, or tan and in extra lengths are available for such use: they are a wise requirement.

Metal discs for chair legs such as can be purchased at any Ten Cent store make inexpensive substitutes for taps for tap dancing shoes. The prongs are easily fastened into the toes of slippers and can be removed at the close of each dance period.

Cosmetics.—Since it is difficult to tell the pupil's reaction to exercise without the ready indications of high color or absence of color it is for the girls' own best interests that there be a rule requiring all to remove rouge and lip-paste before coming to class. This reason should be explained so the girls will not think it mere prudery on the part of the teacher. They will understand such a reason and will respect it provided the teacher herself conforms to the same regulation. The teacher should set an example of moderation in the use of cosmetics. To use them not at all and at the same time to appear unattractive is fatal as far as influence with young girls is concerned.

To make it easy to enforce the rule, there must be at hand paper towels or cleansing papers and a convenient waste basket, also time at the close of the class hour for "make-up" since it is dear to the hearts of most girls of the present decade. Even though the teacher should not approve of the use of rouge and lip-paste, it is universally used by school girls and she would do well to reserve her criticisms for errors of more import. She should warn against the use of too cheap products which may result in skin poisoning.

Rules Concerning Costumes.—It would be well to formulate rules from the following suggestions:

1. There should be a costume requirement for all. This assures uniformity and prevents "class" distinctions. "In many schools pupils are

not required to change to gymnasium suits during the class period. Very often pupils who wear ordinary clothes for physical education work perspire freely in them and, after the period of exercise is over, pass immediately to another class or to a study room and sit for a considerable time in damp clothing. It is doubtful whether physical education carried on under such conditions is at all helpful. It may even be dangerous."⁷

2. The regulation costume should be worn at all activities classes. This assures proper costuming for exercising.

3. Each garment should be marked with the owner's name, the blouse with the name on the back in large enough lettering to be legible at a quick glance from a few feet away. This is a great help in learning the names of new students and it is a ready check on the borrowing of clothing which should be discouraged. If the name is embroidered on, in outline stitch, it is not unattractive and is easily removed when no longer needed.

4. Between classes students should keep their garments locked in the storage space assigned them.

5. When in gymnasium uniforms students should not go to the parts of the building that do not belong to the physical education department or to any parts of the school grounds except those concerned with their class work. The University of Southern California does not permit students in gymnasium costume to go even to the front corridors of their gymnasium building.⁸ This is a wise rule to teach that there is a proper place as well as proper time for sports attire.

6. Costumes should be laundered as frequently as is necessary to present a neat appearance in class. To insure this there should be frequent inspections of costumes.

REGULATIONS CONCERNING CLASS WORK

Attendance.—Some departments permit no absences: some pay little attention to attendance. Between these two extremes are all degrees of rules. Most teachers seem to feel that since physical education work does demand physical condition not demanded by other subjects there should be some leeway in attendance; for example, a sprained ankle will prevent participation in a hockey class but it need not affect attendance in a history class. Some teachers rule that under such circumstances the student is not excused but instead transfers, during the emergency, to a class in individual gymnastics, but if these classes are crowded it is disastrous to have other students dropping in from other

⁷ P. Roy Brammell, *Health Work and Physical Education, Bulletin No. 17, Monograph No. 28, Department of Interior, Office of Education, Washington, 1932, p. 83.*

⁸ William R. La Porte, "University of Southern California Physical Education Hall," *Journal of Health and Physical Education*, September, 1931, p. 6.

sections for temporary attention. Others require that the student transfer to the rest room but this is a passive and negative procedure not to be condoned unless at the moment the student actually needs to rest. Some teachers rule that if a student cannot participate in the class exercise she must observe the work and at least get the benefit of instructions and observation of class performance. This too has its drawbacks, especially for outdoor classes in cold weather. Other teachers prefer to have pupils absent if they cannot enter the activity and then held later on for make-up work in the activity itself. This necessitates make-up classes in all activities; this is frequently an impossibility because of lack of facilities and instructors for such extra hours.

In many schools the department merely follows the rule of the school for attendance upon all classes. If the school permits three cuts from each class without penalty then that becomes the department rule. One small college rules as follows in regard to absences:

If you are not able to dress in regulation costume and do the active exercise of the class work, for any reason other than menstrual functioning, do not come to class. The three cuts that are permitted are given you to use for such emergencies. Should the emergency be of such a nature that it would necessitate absences over an extended period of time from physical education classes only, consult your physical education teacher before additional absences are incurred. Should such an emergency involve other classes as well as physical education classes, the college nurse and the Dean of Women will take care of your case under the usual college regulations.

At Barnard College⁹ in order to receive credit for minimum standards a student must be present at least three fourths of the hours the class meets. Some schools permit two cuts a semester for reasons other than illness provided the student reports to the department office not later than the day following her return to class and procures an assignment to a class in which her absence can be made up. At Smith College all unexcused absences lower the grade.¹⁰ At Cornell University the department permits three cuts a term without penalty and gives a failure for the fourth taken, except in restricted work in which they permit only two cuts without penalty. They define "cuts" as follows:

⁹ Agnes Wayman, *Syllabus for Physical Education at Barnard College*, Columbia University Press, New York, 1931, p. 29.

¹⁰ Department of Health and Physical Education, Smith College, *Physical Education Bulletin*, Northampton, p. 22.

- a. Any unexcused absence is a cut.
- b. Failure to attend Dancing class for observation during menstrual excuse is a cut.
- c. Failure to attend Archery class after first day of menstrual excuse is a cut.
- d. An excused absence not made up within two weeks is a cut.
- e. An absence not excused within 48 hours is a cut.
- f. Failure to keep appointment for Posture examination is a cut.¹¹

In most colleges there is a regulation that students must attend all classes for which they are registered. Recognizing that physical condition does at times interfere with attendance upon physical education classes under circumstances that would not interfere with other class work, the physical education department usually permits students leeway in attendance. At the University of Nebraska a student is allowed three excused absences in physical education without need of make-up and three cuts which, if made up, carry no penalty. If excused absences exceed three they, as well as all cuts, must be made up before the grade in the course is released although the attendance record does not affect the numerical mark when it is released. If cuts taken exceed three the student fails the course: in view of the almost limitless possibilities for procuring excuses for absences this rule is not severe for it applies only to absences incurred beyond the freedom allowed through excused absences.

High schools require attendance at all classes, usually substituting rest or restricted work or study hall at the same hour when regular class work must be missed.

To train students in promptness most departments require attendance at opening roll, penalizing by tardy marks those who are late. Some schools rule that two tardies are the equivalent of a cut, others so rule for three.

Excuses.—There are probably as many varieties of rules about excuses as there are different departments of physical education. Some rule that excuses must be presented at the department office and not to the instructor: others rule the reverse of this. Some rule that excuses must be presented the day the student returns to class work, others accept them at any time. The most usual rule requires excuses to be presented no later than one to two weeks after the date of absence or the

¹¹ Folder of Rules of Department of Physical Education for Women, Cornell University.

absence record must stand as unexcused. Some rule that only those excuses that are in writing and from a certain authority such as the dean of girls, parents, house mother, school nurse, or school physician will be accepted while others accept verbal excuses even from the student herself. The most common practice demands the written excuse from the school health service or the parent.

At Beloit College they had the rule a few years ago that as soon as a student asked the Health Service for her second excuse because of illness she had to fill out a hygiene card faithfully for one month with weekly conferences with the Health Service concerning her record. In event of failure to keep the record she forfeited the excuse.

It is a wise precaution for those schools that have nurses to rule that the nurse will write no excuse unless she has been notified of the illness or disability at the time it occurs.

Menstrual Period Rulings.—Ordinarily students should not be excused from class work at the menstrual period but should substitute light exercise for active work. The reasons for this ruling have been discussed in an earlier chapter. Those students who are unfortunately ill at this time should be excused from exercise but they should be held to report their condition and if they are absent too much they should make up the work missed, as if excused for any other reason.

The substituted light work may be work in the individual gymnastics class which meets at the same hour, in which case there is merely an exchange of report on attendance. If such substitution occurs too frequently the student should be called in for a special conference about it. Some schools permit the substituted light work to be taken at some other hour than the regular class hour. Some require the student to report to her own class taking only the light part of the class work and observing the rest, which seems a logical rule since she is not missing entirely her own class instructions and is not disrupting some other class by joining it unexpectedly; then too she takes her light exercise under the supervision of her own class instructor. Obviously such a rule cannot hold for swimming classes: these students must substitute other class work or better still report later at a recreational swimming hour and work on the class instructions that were given during their absence.

Absences from such classes as archery, golf, tenniquoits, etc., are unnecessary at the menstrual period unless the functioning is abnormal and necessitates absence from other classes as well.

Make-Up Work.—Make-up work is a difficult problem in all subjects of the school but in none so difficult as in physical education for the student cannot go to the library or study hall and pore over a book or papers and so learn physical skills missed by absence from class. Also she cannot, as a rule, go alone to the gymnasium and work at the skills by herself. Technically it is difficult to make up the actual work missed, but for psychological reasons it is good educational procedure to require work missed to be made up even if by some substitute exercise. It may not be necessary to require hour for hour in make up for excused absences—the ideal is to demand merely the attainment of the physical skills that were missed—but for cuts the make-up should involve time element as a disciplinary measure. If attendance is required then intentional non-attendance must call for discipline or the rule is ridiculous. If students are not to be held to account for attendance there should be no compulsory attendance rules. Most schools require two or three periods of make-up work for each period cut so that real discipline is felt.

Students making up work should not be permitted to enter regularly scheduled classes since their irregular presence cannot help but disrupt the class work. There should be special make-up classes at stated intervals, preferably just before term reports are due. These periods should be announced well in advance and those who have make-up work to do should be asked to sign up in advance for a place in the class.

Dressing Room Regulations.—Rules are of great importance in the dressing rooms for the protection of students' personal property, and the prevention of congestion, also for safety and health measures. In making rules for dressing and locker rooms the following suggestions should be kept in mind:

1. Rough play, undue noise, and loafing should not be permitted. Students who are in the dressing room unnecessarily should realize that they are under suspicion in case of theft.

2. Students should not be allowed to leave valuables unprotected. Smith College rules that no valuables may be left in the locker but must instead be checked with the matron.¹² The University of California (Berkeley) rules that even note books must be locked in the locker or left with the attendant. Many schools rule that no valuables may be left with the attendant since the student is supplied with a locker and a lock and should assume the responsibility for her own things. This relieves the attendant of heavy responsibility and leaves her free for other work.

¹² Department of Health and Physical Education, Smith College, *Physical Education Bulletin*, Northampton, p. 22.

3. All personal property found out of place by a student should be turned over, or at least reported at once, to the attendant or teacher.

4. Students should keep their lockers locked at all times except when removing or replacing articles.

5. If lockers are locked by means of padlocks, only those designated by the department as the regulation lock should be used. Students should know that any other lock placed thereon is subject to confiscation. Reasons for this policy have been discussed in an earlier chapter.

6. Students should not be allowed to open or have opened for them the lockers of other students, except upon presentation of a written statement from the owner requesting that permission be granted.

7. Students should dress promptly and leave the room at once.

8. Clothing should be hung on the hooks provided for it; not thrown over booth doors, chairs, benches, or on the floor. Valuable training can be given in enforcing such rules and the teacher should not neglect this opportunity. This rule should be accompanied by frequent inspection and tidy students should be commended.

9. Many students are untidy in the use of wash basins and paper towels. This should not be allowed, not only for the appearance of the room, but for student training in good housekeeping. There should be sufficient receptacles at hand for waste towels and their use should be insisted upon. Much untidiness about the wash basins can be overcome by the suggestion that, before disposing of the paper towels, they use them to wipe out the bowl they have just used.

10. It is a serious charge against the home training of girls that many of them are so careless about the disposal of sanitary napkins even with adequate provision for waste disposal. Rules that these be properly disposed of must be rigidly enforced and girls known to be negligent must be disciplined.

11. Students should not be permitted to lock damp towels and soiled clothing in their lockers.

Fines.—It is the custom to rule that all articles belonging to the school, which are lost, carelessly broken, or damaged by a student must be paid for by the student. Loss most frequently occurs in regard to costumes and towels.

Fines of one or two dollars for each offense are levied against students for various neglects such as failure to keep motor test and physical examination appointments, to arrange class work on the appointed dates, and to remove belongings from lockers on or before the date posted for clearance. Carelessness of students in these matters causes much additional work for the staff and at times serious delays in work with the student body as a whole. Sharp discipline is necessary to prevent these delays, and discipline that touches the pocketbook is usually effective.

Other, but smaller, fines charged against students concern the proper care of their personal belongings. Without a system of such fines, many students would leave their clothing out of their lockers causing greatly increased work for the attendants who must pick up after these students and guard their property. To protect against this, most departments give orders that all articles left out of place after a class has left the dressing rooms shall be claimed by the department and they may be redeemed only upon the payment of a fine of five or ten cents for each article.

At the close of each term many students do not clear their lockers and these articles must be taken care of. It is a common rule that a larger fine shall be paid for redemption at such times since it takes much time and labor to empty these lockers, tagging all articles with the number of the locker from which they are taken so that there will be a proper check on ownership when claim is made later on. Fines for this neglect range from twenty-five cents to one dollar as practiced in various schools.

Rules for Showers.—If it is a natural procedure for the students to go from the dressing rooms to the showers nude there is no need for rules concerning the use of shower robes but if, in a particular school or community, it is not the accustomed and natural thing, the use of robes or towels as a substitute should be arranged for. A teacher makes a serious mistake to attempt to force this custom: such a procedure should come spontaneously from the students themselves. In a certain school, some years ago, a teacher made a ruling permitting any girls who so desired to tear towels or clothing away from those who attempted to use them as shower robes, the idea being that wearing them was due to false modesty and that this procedure would cure the girl of her prudery. The ruling resulted in nervous apprehension, unhappiness, and hard feelings on the part of timid girls and in much jubilant, noisy derision on the part of certain bold girls, all of which finally resulted in the dismissal of the teacher who had thought she could force a change in human nature and thus bring about what seemed to her the epitome of healthful living. On the other hand, teachers should not forbid the privilege to those who would go nude. Each girl should be allowed freedom in this matter as long as it does not interfere with the best interests of the group as a whole.

There is a growing tendency for girls to accept the "gang" shower and "gang" dressing room and this will materially change dressing room plans of the future although there always will be need for a cer-

tain number of private booths for certain conditions and for certain types of girls who would be unhappy if forced to bathe openly with groups of other girls.

The author has seen a marked change in this respect in the behavior of college women in the many years she has supervised their physical education work. In her own college days, before the World War, a girl who might have had the temerity to go about the dressing room nude would have been socially ostracized. Today even with shower robes available, most of the girls pass from dressing room to shower without covering and with such ease that they think nothing of detaining a teacher, should one be passing through the room, and, while they are in this extremely informal lack of attire, engaging her in conversation. In many colleges, faculty women and faculty wives come to the gymnasium and pool for recreational work. Thus thrown with students in the dressing rooms some of them frequently complain about the "shamelessness" of the modern girl and urge that something be done about it. Adults educated in a past generation should accept this new order. As long as the custom comes naturally and unaffectedly it is a wholesome trend. Incidentally the new mode brings a large saving to the budget through greatly decreased laundry bills, now that shower robes are fast falling into the rank of the "do-you-remember-when" days. There also will result still more savings in the building plans of the future through the elimination of need for individual booths for the large majority of women students.

Many teachers insist that there has been a marked improvement in the cleanliness and type of undergarment worn by girls with the adoption of open dressing rooms. The open shower gives the teacher an opportunity to see that the student actually does bathe and does use soap: the opportunities to turn on the water to deceive the teacher and then to crowd into the far corner of the shower booth protected by the curtain and thus avoid getting wet (a custom practiced frequently by girls) no longer exist with open showers. With them the teacher has an easy opportunity to watch for unfavorable skin conditions and to suggest to careless children more thorough scrubbing or drying of neglected parts. Also the rule that a shower must be taken and that it must be a thorough soap bath can be enforced. A raising of the social standards of an entire neighborhood has been known to result from enforced bathing and informal inspection of undergarments in certain high schools.

The National Survey of Secondary Schools shows that 34 per cent of all the schools surveyed require the taking of a shower after class. The various sections of the country are reported as follows: Western schools, 55 per cent; Middle West schools, 45 per cent; New England schools, 26 per cent; Middle Atlantic schools, 22 per cent; and Southern schools, 21 per cent.¹³

Showers should be required for all girls after the activity period except during menstruation, when they should be encouraged. Authorities agree that there is no harmful effect for the average girl from a shower at this time. The duration of the shower should be two minutes or more. The temperature at the start should be about 100° and at the finish 70° or less.

In the smaller schools where bathing facilities are lacking, yet a change of clothing is important, a dry rub with rough towel is advocated after the exercise.¹⁴

Rules for showers are suggested as follows:

1. Showers should be taken at the end of each class hour. Some departments rule that four or six failures to take a shower count as an absence. If the taking of a shower has been announced as a part of the class work requirement then penalizing for this failure is defensible on the charge that the student has left without completing the class work. Usually at college level the ruling is an urging, not a compulsion.

2. If there is a possibility of inadvertently turning on water that is too hot, rules should be given out for the manipulation of the controls.

3. Advice should be given to start the bath with warm water and to follow that by a cold or cool spraying.

4. Warning should be given that chafing after showers in cold weather can be avoided by drying thoroughly.

5. If shower curtains are in use, students should be required to draw them aside as they leave the shower so that it can be known instantly that the shower is empty.

6. Students should be warned not to leave showers turned on. (It has been estimated that a shower head sheds at least six and one-half gallons of water a minute so that one left on carelessly over the noon hour or over night wastes from five hundred to five thousand or more gallons.¹⁵) Attendants should check this hourly.

¹³ P. Roy Brammell, *loc. cit.*

¹⁴ Commonwealth of Massachusetts, *A Course of Study in Physical Education for Junior and Senior High School Girls (Grades VII-XII)*, Bulletin of Department of Education, 6, Whole Number 284, Boston, 1935, p. 8.

¹⁵ V. S. Blanchard, "The Argument for a Continuance of Detroit's Newly Adopted Policy of Non-Adult Interference at Athletic Contests," *American Physical Education Review*, January, 1929, p. 55.

7. If showers are required excuses should be granted for certain emergency conditions when the student asks for an excuse at the time showers are being taken.

8. Foot covering should be required, especially in showers connected with pools, and, at times of epidemics of athlete's foot, in all showers. Girls are more particular than boys in the use of bath sandals and they are also more careful to dry thoroughly between the toes after baths and to dust powder there. As this disease thrives in moisture such treatment is important. This better care of the feet on the part of girls and their greater willingness to conform to a rule for the use of bath shoes no doubt explains why athlete's foot is not so prevalent among girls as boys. Whenever there is an epidemic of athlete's foot no one should be permitted to step on a damp floor in bare feet in any public or semi-public place such as dormitory and rooming-house bath rooms as well as in gymnasium dressing rooms and pools.

Pool Regulations.—Enforcement of rules in connection with the swimming pool is of major importance since the medium in which the students exercise might be easily polluted by their bodies and costumes and since an accident there might readily result in loss of life. Rules for all who use the pool are suggested as follows:

1. Each person must present the dressing room attendant the required certificate from the school health authorities or its substitute before admission to the pool will be granted.

2. "All persons using a swimming pool must be required to take a cleansing shower bath in the nude, using warm water and soap, and thoroughly rinsing off all soap suds, before entering the pool room or enclosure. A bath after donning a bathing suit should not be permitted. [To assure that the bath has been taken in the nude the student should be required to throw the bathing suit over the shower wall where the inspector can see it: a better plan is to give out the suit only after the bath is taken.]

3. "A bather leaving the pool room or enclosure for any reasons should take a foot bath before returning. A bather leaving pool to use toilet should be required to take a second cleansing bath before returning.

4. "All bathers should be instructed to use the toilet and particularly to empty the bladder before taking cleansing bath and entering the pool.

5. "Any person having any skin disease, sore or inflamed eyes, cold, nasal or ear discharges, or any communicable disease must be excluded from a public swimming pool.

6. "Persons having any considerable area of exposed sub-epidermal tissue, open blisters, cuts, etc., should be warned that these are likely to become infected and advised not to use the pool.

7. "Spitting, spouting of water, blowing the nose, etc., in the pool should be strictly prohibited. Bathers should be instructed that the scum gutter is provided for expectoration.

8. "All bathers should be instructed that blowing the nose to remove water is likely to force infectious matter into sinus and inner ear cavities and possibly cause serious consequences.

9. "Divers should be advised to wear rubber caps over the ears or to plug the ears with greased cotton to prevent infection of the ear drum and passages by water forced in by concussion.

10. "No boisterous or rough play, except supervised water sports should be permitted in the pool, on the runways, diving boards, floats, platforms, or in dressing rooms, shower rooms, etc." ¹⁶

11. All who enter an artificial pool must wear bathing caps; this rule applies to men as well as to women for the protection of the water from undue accumulation of hair oil.

12. None but suits owned by the school may be used.

13. Bath shoes must be worn in all parts of the pool rooms except in the pool itself.

14. The antiseptic footbath must be used before entering the pool room.

15. Chewing gum, corn plasters, etc., must be removed before entering the water.

16. No one may enter the pool unless a life guard or attendant who can serve as a life saver is present.

17. Each person must report to the person in charge of the showers before going to the pool room. This gives an opportunity to check bathing and skin conditions.

18. Each person must report to the person in charge of the pool before entering the water. This gives an opportunity for a final check of bathers and also gives the teacher control of the activity.

19. There must be no visiting with the life guard.

20. All orders of the guard must be obeyed promptly.

21. No one shall be admitted to the pool platform or shower rooms in street shoes.

22. The hair dryers must not be monopolized if others are waiting to use them.

23. All persons failing to comply with any of the above rules shall be refused permission to use the pool.

24. After leaving the pool a cleansing shower should be taken to remove from the body all traces of chlorine which is irritating to sensitive skins.

¹⁶ Rules 2-10 from Joint Committee of American Public Health Association and the Conference of the State Sanitary Engineers, *Swimming Pools and other Public Bathing Places*. Reprint from *American Journal of Public Health*, Public Health Association, 1930, pp. 28-29.

The University of Southern California has a rule that no one may enter the large recreational pool until he passes a swimming test; until then he must go only to the small instructional pool.¹⁷

Rest Room Regulations.—Students should be trained to spread a bath towel over the cot pillow and if the temperature requires that the blanket be drawn up around the shoulders, a second towel should be used to turn back over the blanket to protect it from the child and to protect the child from having the blanket touch its face and neck. If towels cannot be supplied for this, paper towels may be used. Shoes should be removed before lying on the cots. Talking, whispering, reading or working at studies should not be allowed. All should be instructed to lie on the cots quietly and with eyes closed.

Rules for Use of Equipment.—Students should be taught their responsibility towards the proper use and care of equipment; especially should they be instructed in regard to its use and care when used without supervision. Rules should be posted to inform them how, when, and where equipment may be checked out and returned.

¹⁷ La Porte, *op. cit.*, p. 8.

CHAPTER XIII

PRELIMINARY PREPARATIONS FOR THE YEAR

"It is their care that the wheels run truly."

—KIPLING

THE SUCCESS OR failure of departmental work depends upon the organization work that is done behind the scenes and the type of administration that is applied. If the department work is a one-teacher job, it is important to have in that position one who has a flair for organization and administration work. All good teachers are not good organizers and administrators: those who are not should be employed in positions where there is an organizer and an administrator to supply their deficiencies. On the other hand there are persons who are excellent organizers and administrators but poor teachers: these persons should, as soon as possible, find their niche in an administrative capacity so that they supplement their abilities by surrounding themselves with those who are excellent teachers. There are some people who have abilities in all three lines: these persons in their early years of experience should man the departments where they not only teach but must also organize and administer their own work. All small school positions call for such persons and these are the ones for whom this book is primarily written.

The following material is offered as suggestion of the countless things that must be anticipated, looked after, managed, and brought to a successful close if the department work is to run smoothly and effectively and without serious oversights.

PUTTING THE PLANT IN ORDER

The physical education teacher should not leave it to the school authorities to read her mind as to the departmental needs nor to make the decisions themselves without having had actual close contacts with the work or without knowing the departmental objectives.

Reports to Chairman of Buildings and Grounds.—All parts of the building and grounds which belong to the physical education

department in any relationship should be thoroughly inspected and all repairs, replacements, and improvements needed for all class work should be reported to the proper higher authorities. This report should be in writing and should be checked on occasionally, to urge its serious consideration. All information needed for the successful carrying-out of the report should be supplied so that the persons concerned will not have to ask for still further information in order to carry out the requests.

This report should call attention to all items that should be cared for from the general school budget and for which, therefore, the teacher would not write official orders. Such items would be the following: refinishing gymnasium floor, replacing cracked window panes, painting, repair of plaster, inspection of lights, in fact all work that needs to be done on parts of the building or grounds used by the physical education department.

Although schools have buildings committees whose task it is to inspect regularly and to order painting, cleaning, and repairing done as needed, yet the physical education teacher must expect to be on the alert to point out needs and to claim attention rather than passively wait for the committee to become interested of its own volition. When walls and ceilings are dirty, requests for painting and cleaning should be made without hesitation. The request might be refused at first but the refusal calls for follow-up requests. Teachers should not meekly submit to the dirty surroundings found in many schools.

If the report seems too lengthy for full acceptance, choices should be indicated for first, second, and third consideration, but with hope of receiving full attention.

Work on the Building.—The grand house cleaning of the year involving every nook and cranny should be the one given just before the September opening, since the school year holidays are short and students and teachers are never so completely absent as in the late August days. Everything should be put in order for the year. The checklist of annual care should be consulted for this August round-up.

Work on the Fields.—If uneven places need to be filled in, if repairs are needed in the fence, if any changes should be made in staking off courts, if goals should be repainted, etc., all these should be attended to before the fall opening.

PROCURING EQUIPMENT AND SUPPLIES

Before school closed the past year, the budget for the following year should have been made out and approved, or revised as suggested by superior officers, and then approved. From it the physical education teacher knows what she can plan for preliminary preparations. There is now the task of studying the problem of all facility-, equipment-, and supply-needs in light of the budget allowance; of arriving at a final decision as to quantity, quality, sizes, and colors to be ordered; of placing the orders; and then upon the arrival of purchases, of checking the orders and putting all purchases in their proper place.

If there are not at present proper facilities for caring for these purchases some of the budget should be reserved for that purpose for it is a waste of funds to purchase articles which will be easily lost or damaged for lack of proper care.

Printed Supplies.—Samples of printed supplies of various sorts are shown throughout the book. All handbooks, copies of rules and regulations, constitutions of organizations, in fact all mimeographed and typed materials should be dated. This may seem unnecessary at the time but after material is two or three years old it is frequently quite important to know the date of issue. This does not apply to forms that are to be filled in with information later.

Quantities to Order.—The quantities needed naturally depend upon the enrollment but it should be remembered that the greatest expense is in setting up the forms, and that large quantities cost little more than small ones. It is poor economy not to order as large a supply as will be ultimately used. On the other hand it is a waste of money to order such a quantity that forms outlive their usefulness long before the supply on hand is exhausted. A little figuring on the quantities needed each year, plus a safe margin for increases in use, loss, and waste, will give a figure which when multiplied by four or five will be a safe guess at quantities to order. As departmental policies change with growth, the forms for printed supplies need to be changed. It is poor policy to be tied down to the use of outmoded forms just because there still remains a large supply at hand.

Colors to Order.—Different forms of the same size should be ordered in varied colors for easy reference. For example, examination forms might be white; motor test forms, salmon; class record cards, yellow; hygiene records, blue; and so on. This plan makes the handling of these records easier for everyone concerned.

Forms and Sizes to Order.—For all departmental records which are to be filed none but standard forms should be used. The most common filing sizes are three by five inches, generally used for individual weight records, locker and class enrollment cards; five by eight inches, commonly used for physical examination and motor test forms, individual gymnastics class prescription cards, employer's reports, hygiene cards, deferments, etc.; eight and a half by eleven inches, the standard letter size, used also for mimeographed lesson outlines, class reports, inventory sheets, examination forms that are to carry full school record, and so forth. The four- by six-inch size is popular in some schools but it cannot replace the five by eight size for many purposes and is larger than is needed for many cards for which the three by five is a better size.

Substitute for Printing in the Small School.—If the budget is too low to cover the cost of printed supplies the small department need not be handicapped by lack of forms. The author in her early teaching days printed cards by hand and with volunteer student help soon turned them out by the dozen. To make a supply for a small department to last one year is not an appalling task. In these days of typewriters and classes in typing, a resourceful teacher will design all the sample forms she may need, using cardboard cut to the desired size, and will persuade the head of the commercial department to have sufficient copies typed as a class project. This should be done in the spring for all forms needed at the opening of the fall term. Through the same channels department rules might be mimeographed.

Locks.—The order for combination padlocks should specify that some identification letters be stamped on the lock and that they be sent in a certain sequence of numbers as named by the department so that all sold or rented for physical education classes may be easily identified and will correspond to the master chart on file in the department office. Such service carries no extra charge. The firm supplying the locks supplies free of charge to the department a master combination chart which contains the combinations of all locks within the range of numbers to be sold that season. If the department used numbers 1 to 200 last year it will find it convenient to order locks of number series 200 to 400 for the new year, so that the new purchases will not duplicate the old. *PE*, *WG*, *G*, etc., are common identification letters standing for Physical Education, Woman's Gymnasium, Gymnasium. These are stamped on the base of the padlocks and such marking makes it easy for the attendants to check to see if all locks in use are of the series under control by the department master chart.

Costumes.—What type of a costume shall be the regulation suit? What shall its specifications be? What color shall it be? Of what material? Who shall make it? How shall it be handled? These are the major questions to be settled in the administration of the costume problem. As to style, good lines should be selected rather than merely "popular" models. The ugly lines of some "shorts" should be avoided. There are bloomer styles that give leg lines that are unaesthetic in their proportions while others accentuate the width of hips and show a "broad seat" in proportion to leg length. In these days there are so many ugly outing and sports costumes worn by girls and women who might appear attractive in costumes of different lines and at no more expense.

It is especially important that state universities, leading colleges, and prominent city high schools select their costumes with care, for girls from lesser schools are quick to follow the standards set by them. Quoting from an earlier published statement of the author:

Letters come to my desk from school superintendents and principals from all over the State asking advice about athletic costumes for girls. These same letters also come from men coaches and home economic teachers in charge of girls' sports, from parent teachers' associations, women's clubs, and deans of women. In most instances someone has persuaded the school girls that the very latest and most approved athletic costume is a type of costume the writers of these letters are in doubt about. The writers fear they may be "backwoods" or "old foggy" in their objections, so they turn to the State University for advice. On the other hand, some of the writers are sure the costumes in question are satisfactory but the school board objects or parents object and so they ask for assurance. In many of these instances I have to inform the writer that I agree with the school board and do not approve the costume, suggesting one that would meet with approval. It is an easy task to dissuade high school girls from their choice of an inappropriate costume once they are sure that the girls at the university or a prominent school do not wear such costumes.¹

American Physical Education Association Standards in Costumes for Girls.—A special committee of the American Physical Education Association was appointed a few years ago to draw up standards in costumes for girls and women. Their report is published in reprint form: it should be studied carefully before deciding upon a regulation costume. An outline of the standards adopted² is as follows:

¹ "Sports and Games—A Dynamic Educational Force," *Recreation*, July, 1929.

² Arranged from Clare Small, "Standards In Physical Education Costumes for Girls and Women," *Research Quarterly* of A.P.E.A., October, 1934, pp. 70-84.

1. Aesthetic considerations: The type and color that best suits the entire group should be chosen.

2. Social standards: Schools should follow rather than lead the mode; costumes should be adopted to meet the conditions that need to be considered in the local situation.

3. Hygiene of costume: ". . . as much of the body may be exposed as is compatible with temperatures . . . and with the social standards" of the locality: the use of elastic should be avoided as much as possible.

4. Material: Materials should be such as can be laundered frequently without fading and shrinking; Indian head, Pepperell suiting, Everfast suiting, Peterpan cloth (gingham), Oxford cloth, poplin are all popular, having been tested and approved. Wool is often irritating to the skin, shrinks when washed, and is injured by extreme temperatures of water. Naphtha soap is the least harmful to wool, and in washing it should be squeezed, not rubbed, "for rubbing causes more shrinkage and felting than either extreme temperature or strong soap."

5. Colors: The public schools of most cities adopt one color so that the students may use the same costumes in all schools of the system. The specifications of the city of Detroit call for colors dyed with vat dyes and guaranteed to be fast to all ordinary tests.³

6. Style: The one-piece cotton suit is the most popular suit, being used almost universally in the junior high schools and widely so in senior high schools and colleges. According to one manufacturer ninety-five per cent of sales to high schools and ninety-four per cent to colleges are one-piece suits. The Pacific Coast uses the two-piece suit in both high schools and colleges more than do other parts of the country.⁴

7. Bloomer Length: "Good taste, comfort, and the judgment of the community group should be the guides which determine [this length]. If we set the range for the bottom of the garment between knee length and half way to the knee, we have a standard which is neither too conservative nor too radical, and one which is satisfactory to 93 per cent."

8. Shorts: The only advantage shorts have over bloomers is that they "do away with the necessity of elastic in the legs."

9. Construction of Costume:⁵ There should be facings of self material to reinforce edges; seams should be double felled; there should be at least ten stitches to the inch; the placket should be three-fourths inch wide, concealed and securely fastened; the pocket should be invisible and at least five inches deep and four inches wide; all strain parts should be reinforced; buttons should be of a kind that will not

³ See Laurentine Collins, *Specifications For Physical Education Uniforms* mimeographed material issued by Board of Education, Detroit, Michigan.

⁴ These are figures of a 1933 report. Since then there has been a decided trend in the college away from the one-piece suit which was at that time foretold by a costume manufacturer as quoted on p. 73 of Miss Small's report.

⁵ Many of the details of construction of the A.P.E.A. report were adapted from the Detroit public schools specifications.

break; the elastic used should be boil proof and the shoulders should open with buttons facing out.

10. Sizes: Because of variation of physiological development costumes should not be ordered by size alone but by short, medium, and tall classification within each size.

11. Guarantee: Costumes should be ordered from none but manufacturers who will give the following guarantee:

"The manufacturer shall guarantee the suits not to rip or tear at a seam or strain point during the life of the suit and shall further guarantee the colors to be absolutely fast. He shall agree that in the event of failure of any of the points hereinbefore stated to replace the suit to the purchaser without cost."⁶

Bathing Suits.—As to standards, the design of bathing suits should be simple, the crotch reinforced and the seams double felled. As to colors, gray is no longer a necessity now that fast colors are guaranteed. The University of Southern California uses suits made of a combination of wool and cotton, light gray for the men and navy blue for the women.⁷ The University of Texas uses a jade green suit which on test still holds its color well after 120 sterilizations. Oberlin College uses a mercerized cotton suit of rust color suggested by the tile trimmings of their pool, while the University of Nebraska uses a mercerized cotton suit in black to harmonize with the black trimmings in the cream tile borders of the pool. The Universities of Colorado and Chicago use all wool suits.

For woolen materials, the better the piece of cloth, the more the number of threads to the inch: it is a good piece of wool if, when squeezed tightly in the hand, it springs back into shape upon release.⁸ Wool is now made of a very flat nap and in fast colors so that it does not shed or lose color. It fits better, retains its shape better and is warmer and more comfortable than other materials. Organizations that use it report complete satisfaction from both the students and the engineers in charge of the pool. It is possible now to buy satisfactory laundering and sterilizing apparatus for this type of suit.⁹

Methods of Handling Orders.—Costumes are handled in many different ways: (1) purchased for school ownership directly from the manufacturer on a competitive bid; (2) purchased for school ownership through a local dealer; (3) purchased directly from the manufac-

⁶ Small, *op. cit.*, p. 83.

⁷ William R. La Porte, "University of Southern California Physical Education Hall," *Journal of Health and Physical Education*, September, 1931, p. 8.

⁸ Small, *op. cit.*, p. 81.

⁹ *Ibid.*, p. 77.

turer by the department or school for sale to student giving student benefit of school discount (ruled against by a Cleveland judge); (4) purchased by student from a certain local dealer designated by department; (5) purchased by students from any one of a group of dealers who carry costumes specified by the department; (6) purchased by students anywhere as long as the purchase resembles the regulation costume; and (7) made at home. To deal with but one manufacturer and with but one local firm is the most satisfactory for all concerned.

Placing Orders.—The routine of ordering is established by each school. As soon as possible the physical education teacher should become familiar with the procedure established for the local situation. It is customary in the larger schools for the head of the department to fill out a requisition form naming the articles wanted, the quantity, quality, size, color, estimated cost and, if it is to be ordered from a certain firm, the name of the firm. Each staff member placing an order should supply the head of the department with all necessary details concerning it. All articles needed for the opening of a new school year should be ordered during the summer if not at the closing in the spring.

WORK MANUALS

A department that is well organized will run along smoothly without constant detailed attention from its head except for emergency and non-routine tasks. For such organization the routine tasks of all workers should be listed in writing in their order of doing and each worker should understand her part, then each should follow the list instead of having to be informed constantly by the head what to do next. This leaves the director free to employ her energies in other and more important directions, such as in plans for future development, curriculum study, personal contacts, and promotional work.

There are three sets of work calendars all teachers should keep: the manual of routine work, covering things to be done within certain limits of days, weeks, or months with no particular day or hour specified; the calendar pad of variable work, listing for each day, odds and ends of tasks that have come up for attention for a particular date but which demand no specific hour assignment; the appointment pad, for a record of variable tasks which have arisen for a set date and require attention at a set hour.

Fortified by these three calendars a teacher need slight no part of her work yet there will be no necessity to carry details of organization

work in her mind. When away from the office, she should jot down such notes on loose papers for transfer to the proper pads as soon as they are available. Reminders on loose papers scattered here and there, over and inside a desk, and in pocketbooks and notebooks are worthless for there is no assurance they will turn up at the correct time as they will do on the calendar pad provided they have been recorded there for the correct date. The wise use of these three calendars requires a constant checking of each against the other so that the routine, variable, and appointed tasks do not interfere with each other. This soon becomes an easy matter once the habit of keeping such records is formed. This seeming slavery to calendar pads is a sure way to gain freedom from worry over details: each item will thus claim attention only when its allotted time arrives. The teacher who thus gives attention and organizes her time is not the teacher who uses the alibi "I forgot."

To those who are methodical, such detailed advice on so simple a matter will no doubt seem out of place but the experience gleaned from years of work with many people (both students and teachers) who do not seem to know how to plan their time effectively and so waste much time and energy, makes the author bold to discuss such seemingly trivial things. How frequently do we hear people say, "My work is too important for me to be bothered by such details" or "Surely you can't expect me to remember everything!" The effective person organizes details so they do not bother and finds a way to remember every necessary thing: that person does not need to apologize to anyone for the quality of her work.

Routine Work Manual.—It is well to have in outline form a list of all routine things that must be done throughout the year so that it will serve as a constant reminder of tasks needing attention at certain times. Without such a list the teacher must carry all such details in mind with the result that many things are neglected completely or until too late to attend to them properly. This manual should be made into a calendar with sections for the various parts of the year and it should be revised constantly. For this constant revision the manual should be kept in a loose-leaf notebook with free space at the end of each section for notes for the future, and the instant it is found that a routine task has been neglected that task should be written into the calendar where it will appear in the future as a reminder.

The head of the department should have at hand not only her own work manual but a copy of those formulated for all workers under her direction: in fact all these manuals should be made in the first

place under her direction into one complete departmental manual. It should contain specific information concerning the complete work assignments of all workers, explaining to each her relation to other workers, her extent of authority, general policies and rules for work, and directions for her specific tasks. It should be so complete that a person succeeding to the directorship can, by reading the manual, have a thorough understanding of the form of organization and all details of its functioning under the previous leadership. From time to time the head of the department needs to check to see that all details are being carried out at the proper time, in the proper manner, by the proper person. In unusually large organizations, the director assigns the responsibility of checking routine work to a deputy, who is a member of the staff, or to a committee of the staff: in a few organizations, the departmental secretary assumes this responsibility or at least a part of it.

Variable Work Calendars.—It is impossible to foresee the emergency variable tasks that will arise, and even if it were possible, it would not be desirable to attempt to write them into a work calendar, since they are not necessarily tasks to be repeated. For such tasks the teacher should use a desk calendar pad. On a routine work list there would be such notes as "inventory all spring sports equipment," or "send in term grades to the principal's office" but on the variable calendar would go such notes as "see about the balls lost in the 9 a.m. class" or "have Jane Smith in for conference before marks go in." The routine calendar grows and changes. It should be revised constantly and carefully preserved but the variable calendar sheets may be torn off and destroyed, day by day, or, week by week, as a new day or a new week approaches with its specific tasks. A variable task should be recorded the moment it comes to mind even though the day for its performance is yet far away—the farther away the more reason for recording it so it will not be forgotten. To be effective it should be recorded on a sheet representing the date for its execution. The most convenient calendar for the "variables" is the day-by-day calendar pad covering the entire year with a leaf for each day which can be turned to for advance notation before that day arrives, and can be folded back, after the day is over, to be held for reference if, for any reason, it is needed later on. As soon as a pad for a new year is available, reminders to check the routine work calendar as the year progresses should be written in at the proper dates, also promises or agreements made for action on certain future dates. If any of these promises involve preliminary preparations it is important also to write in a warning note a week or

so ahead of the date due. Practically all daily calendar pads carry additional pages at the end to record notes for the new year before the new pad is available. These notes should be transferred to their proper dates on the new year's pad: the earlier it is purchased when once on the market the less copy work will there be. It is not at all unusual for a busy teacher to have notes for future tasks, promises to keep, and special plans to put into effect to write into pages of every month of the coming year before January first has rolled around. It is only by the use of such dated reminders that each day's tasks properly reveal themselves.

Appointment Calendars.—The third calendar the teacher should keep is an appointment calendar. If there are many appointments for a given day and also many variable tasks for that day and all are recorded in the order of their coming to attention and not in the order in which they should be fulfilled, some appointments are easily overlooked until the hour is past. Appointment pads usually come spaced by hour, half-hour, or fifteen-minute period. Every appointment for a future hour and date should be recorded in its proper hour space with the name of the person or group to be seen and the place where the conference is to be held: the amount of time it is estimated will be needed should be blocked out. Days that present variable tasks that must have a set time reserved for them should have that particular time blocked out on the appointment pad with the word "work" so the hour will be reserved for that particular task with no appointments made. This record must be made as soon as the time for the task is determined, otherwise the appointment pad notations may interfere with the variable tasks of the day.

Effective use of these two calendars is shown in the following example: the President of the Parent Teachers Association calls in May to invite the teacher to speak on October eighteenth at their meeting which will start at 8 p.m.; the teacher accepts and they agree on a topic; in her appointment pad for October eighteenth, and in the hour covered by the time of the meeting she writes, "Speak at PTA—H.S. Auditorium," and in her daily work calendar she turns to October first and records "Speak PTA, Oct. 18, subject 'What PE Can Do for Our Girls'—30 min. talk." In this way the hour is saved from other engagements and she has given herself over two weeks' warning to prepare her talk and, while it is fresh in her mind, has noted its subject and length and name of the group to be approached. With such advance notations she cannot forget during the five intervening months and will not be

taken by surprise when the PTA office reminds her the day before the meeting that they are expecting her according to the earlier agreement: yet from the day the promise is given until the day the speech is to be prepared, it can safely be dismissed from mind completely.

Office Routine.—The office preliminaries for the opening of a new school year are multiple and the successful start of the department work depends upon their completion in time. Each situation has its own particular duties but those common to most departments are as follows:

1. Arrange for medical examinations and if appointments are to be made for students prepare appointment books. It is necessary to check with the health service those parts of the routine school examination which concern departmental work in order to be sure that the two departments are in agreement as to the nature of reports which are to be sent to the physical education department and how, when, and where the reports are to be made. If the department is to arrange the appointments for these examinations for the physician it is necessary to find out the exact hours he will be on duty and how many he will examine in a period. Appointment sheets should be made to cover as many periods as will be needed to examine all who are to be examined: the exact date and hour and number of names that are to be written in for each period should be indicated on each sheet.
2. Make plans for physical examinations, checking all details and making all preparations that can be made in advance. Appointment sheets similar to medical appointment sheets should be made unless the examinations are to be given during regular class hours.
3. Prepare locker records to be filled out when assignments will be made. They should be made in two ways: one listing the locker numbers consecutively with space after each to record the name of the person to whom it is assigned; the other with space for the names arranged alphabetically with space after each name to record the number of locker assigned. If there are a few hundred students this list is kept in card-index form and the cards are filed alphabetically by last names.
4. Order all equipment and supplies and, as articles are delivered, put them away in their proper places.
5. Check the work completed on the list of cleaning and repairs on buildings and grounds submitted at the close of last school year.
6. Check all orders for purchases made since May and follow up all not completed.
7. Arrange for registration in physical education classes, checking on all details and making all preparations that can be made in advance.
8. Prepare report sheets for swimming pool attendant to use during the year in reporting care of pool, load using it, etc.
9. Prepare inventory sheets for the year's use.

OPENING DAYS OF THE NEW SCHOOL YEAR

Opening Staff Meeting.—The staff should be called on duty in sufficient time to be located and settled in their living quarters for the year before the first staff meeting, which should precede the opening date of school far enough in advance for all details of procedure for the opening days to be rehearsed in minute detail. Previous to this the head of the department should check on all preliminary preparations such as are necessary for the local situation and should prepare in final form the opening days' special work calendar: it should have been agreed upon in general outline before school closed in the spring. The lone staff member of the small school needs to review procedures as much as does a large staff.

Even if there are no more than two on the staff the head of the department should have ready for presentation at this first staff meeting a work chart for the department as a whole. It should state the specific assignments for each staff member so there will be complete understanding of what each is to do, hour by hour and day by day of the opening days, before settling down to the regular routine of the school year. Such a chart should be made up in two forms: one a complete schedule of all work to be done by hours and days; the other, individual schedules for each worker covering only her own assignment. A copy of the first form should be posted for all and a personal copy of the individual schedule covering her own individual assignments should be given to each worker.

The First Contact With the Student.—For a first contact with students it is necessary to arrange in some way to get in touch with them through the school machinery. The method that may be employed will depend altogether upon the local situation. In colleges certain preliminary announcements are made through the catalog, the final announcement of dates and place where the student is to register being announced in the class schedule, a copy of which is given to each student as she enters. It is common practice to announce that an examination is required of all upon entrance and that the student should present herself at a certain place for this examination before registering for classes. In high schools, the students are usually given first instructions from their home room.

All announcements which it is desirable to make to students for the first day by way of bulletin boards should be prepared and posted a

day or so in advance. Preliminary instructions should be prepared in mimeographed form to present to students as they appear for registration so that they can read them more leisurely and hence more carefully than if reading posted notes. If this is not possible many different copies of instructions should be posted so all will not need to crowd around one or two copies. These preliminary announcements should inform concerning registration procedure itself, costume requirements, locker assignments, examinations, motor tests, and first class meetings.

The following set of instructions which are contained in two sheets of mimeographed material is an excellent example of an all-inclusive form.

UNIVERSITY OF CALIFORNIA

PHYSICAL EDUCATION FOR WOMEN

INFORMATION CONCERNING COSTUME AND BEGINNING OF CLASSES
AUGUST, 1936

SECURE DRESSING ROOM, LOCKER ASSIGNMENT AND COSTUME
FOR CERTAIN COURSES

(DESCRIBED BELOW) AT OFFICE 104 BEFORE LEAVING FOR THE
GYMNASIUM TODAY

Classes begin Monday, August 31. Classes start at 15 minutes past the hour at the gymnasium, field, or pool stated in the Schedule and Directory. Students should report promptly, in the costume described below, since instruction and practice start at the first meeting of each class. EXCEPTIONS: (1) *Students enrolled in Dance* who do not already own a costume will wear campus clothes with regulation tan dance sandals to this first meeting of the class; (2) *students enrolled in swimming who have a regular excuse* will wear campus clothes to this first meeting of the class.

Costume supplied by the Department: The brown gymnasium costumes, tennis shorts and blouses, the tan dance undergarments and the swimming suits are University property and are obtained at Office 104. These garments are laundered by the University. Clean gymnasium and tennis suits or dance undergarments may be obtained at any time by turning in the used suit at Office 104.

Students who wear the brown gymnasium costume should note that blouses and knickers come in three lengths for each size (L—long, S—short, M—medium). Try on your costume and secure the right size before leaving the gymnasium.

Costume to be supplied by the student: With the exceptions noted above, students supply costumes approved for the several activities as indicated below.

Socks and shoes are provided by students according to the activities in which they are enrolled as noted below. Samples are shown at Office 104.

Tan ankle socks will be found at the A.S.U.C. Store for 25 cents.

Regulation shoes may be obtained at the A.S.U.C. Store at the following prices:

Low white Keds	Tan dance sandals	Clogging shoes (no taps)
\$.95	\$1.25	\$3.00

All students who use the gymnasium are required to provide rubber bath shoes to wear to the showers and the swimming pool in order to prevent skin infection.

The physical education activities are listed below for your convenience. Be sure to obtain costume and equipment indicated, and follow any instructions given.

Sports:

1. Archery. Wear sport clothes and rubber-soled shoes. Provide yourself with a shooting glove. Examine sample at Office 104, or buy at the A.S.U.C. Store. Price, 75 cents. A locker and dressing-room assignment may be secured at Office 104, but is not required.
2. Badminton and Games. Secure from Office 104 a regulation gymnasium costume, locker and dressing-room assignment. Provide yourself with tan ankle socks and low white keds with white rubber soles.
3. Fencing. Same as Badminton, above.
4. Golf. Wear campus clothes such as sweater and skirt, or costume providing ample freedom for swing. Wear golf shoes, or sport shoes with low flat heel. Golf clubs (a brassie or driver, a mashie and a putter) and balls are furnished by the student. A golf bag is desirable. Total cost, if purchased at the A.S.U.C. Store, \$8.50.
5. Hockey. Same as Badminton. . . .
6. Swimming and Life Saving. Secure from Office 104 a locker and dressing-room assignment. Before each class meeting secure a swimming suit from Office 104. Each student provides a rubber cap and bath shoes.
7. Tennis. Wear white tennis dress or shorts and tennis shoes. Tennis shorts and blouses supplied by the Department may be obtained at Office 104. Bring a tennis racket and 3 new balls to the first meeting of any tennis section. A locker and dressing-room assignment may be secured at Office 104.

Dancing:

8. Modern Dance and Dance Composition. Secure from Office 104 a tan undergarment, locker, and dressing-room assignment. A dance costume is provided by each student. Cost, about \$1.75. For the benefit of those who do not already own this costume,

it will be described at the first meeting of the class. Regulation tan dance sandals are required.

9. Clog dancing. Secure from Office 104 a regulation gymnasium costume, locker and dressing-room assignment. Provide yourself with tan ankle socks and with regulation black clogging shoes without taps.

General Exercise:

10. Exercises and Games. Same as for Badminton. . . .

Gymnastics, Stunts and Tumbling:

11. Major Block. Same as for Badminton. . . .

Individual Exercise:

12. Individual Gymnastics. Secure from Office 104 a regulation gymnasium costume, locker and dressing-room assignment. Provide yourself with regulation tan dance sandals and tan ankle socks.

Department Notices

Students are responsible for all notices posted on the Department Bulletin Board during the semester; also for information contained in the printed leaflet which will be distributed at the first meeting of the class to all those students who have not previously received one.

.

(Signed) VIOLET B. MARSHALL

Director, Department of
Physical Education for Women

The next thing is to see that the student has a medical examination, with the school health service, if there is one, otherwise with her family physician bringing a written report to the department for filing. If appointments are to be made for the doctors, the student should be given an appointment with her name written into the appointment book for the date and hour selected, giving her a slip bearing the same information, and checking the two records against each other for error before dismissing the student. No more appointments should be given for each period than the doctor has indicated he will be able to care for at that time. Some schools that cannot afford personal appointment slips for the student to carry away as a written record of the appointment prepare a duplicate of the appointment blanks and post it so

the student may refer to it for confirmation of her assignment. On this the student should not only be told when to go but where and why, and she should be given a brief summary of what she may expect from the examination so she may go to it free of apprehension.

The list of appointments for each period should be given to the physician before the period opens. In many schools appointments are not necessary because the school health service merely announces that it wishes so many students sent to it at a certain hour and they are called out of study hall or registration line or physical education class and examined immediately.

Organization for the Examinations.—Every detail of the examination should be worked out ahead of time so every least bit of equipment, least arrangement of rooms, least worker will be planned for, procured, and properly assigned and the procedure properly rehearsed before the first student appears to be examined. There must be no hitch in any part of the procedure so the students can be passed along the line and examined with no seeming rush yet with alacrity. A little slip in the organization of this work may seem unimportant to the inexperienced but let one slip, one overlooking of some detail, cause a slowing up some place along the line so that one or two students are cut off the schedule of each of two or more examiners for each hour and there will result loss of time in examining two dozen or more students in a day: in a week's time it will result in at least a half day to be added to the examining schedule, putting off other work.

In examining routine, student help should be used wherever possible to release the teachers for those parts of the work which they, only, can do, thus shortening the total examination period and attendant night work. If possible all examinations should be completed before registration for physical education classes. It is important to organize the work to include a closing conference with each girl to go over briefly the findings while she is interested in them. This is the golden opportunity to catch and hold her interest in the correction of defects. This conference will run off rapidly if someone who is properly trained for such work is assigned to look over the findings of the examination blank while the girl is dressing, slipping a colored metal index-tab on the card for various defects that need discussion, such as a red tab for heart condition, a yellow one for foot condition, a green one for poor posture, and so on: these colors will catch the eye of the conference leader and will save the need of reading the entire card.

Plan to Examine 250 in Three Hours.—One high school department¹⁰ has found it possible to examine 250 girls in three hours by use of the following list of workers:

1 director of examinations	1 trained person to check completed cards
5 doctors	
2 teachers trained in orthopedics	1 person to give out recommendation slips and conference appointments
2 persons to take case histories	
1 person to take height and weight	10 clerks (may be responsible pupils)
1 person to look after the cards	10 guides and messengers (may be responsible pupils)

The examination given by this corps of workers consists of tests of heart, lungs, sight, and hearing, orthopedic examination, and taking of height and weight.

Plan to Give All Examinations to 400 Students in Five Days.—The ideal arrangement is to have all examinations, both physical and medical, and motor tests completed before the routine work of the school year begins. If possible to arrange it, one appointment with the student should cover all examinations. By this plan the student can be scheduled for all her school work according to her physical condition. This is the only intelligent mode of procedure. If a special corps of medical examiners, recorders and assistants can be procured to augment the physical education staff, all three tests can be given to over 420 students in five days according to the following plan devised by the Department of Physical Education for Women of the University of Colorado.¹¹

This complete examination takes each student two hours eighteen minutes including dressing and undressing and passing along the line from one examiner to another. Two students are started through the tests every ten minutes.¹² An outline of the details of such an organization is as follows as given by Miss Small:

I. Larger aspects

1. Survey of equipment (available space).
2. Combining various parts of the examination and separating others.
3. Schedule of examinations

Conditions to be met: Registration in University, Sept. 23-25;

¹⁰ Esther Sherman, *Health Education: A Program For Girls in Secondary Schools*, Board of Education, Detroit, 1929, pp. 32-33.

¹¹ Clare H. Small, "The Complete Physical Examination for Women in Colleges and Universities," *Bulletin of the Mary Hemenway Alumnae Association of Wellesley College*, March, 1926, pp. 12-23.

¹² Changing methods and content have no doubt affected some of the details of this plan which was formulated ten years ago but it still stands as a model of organization planning.

all freshmen must be examined before they register; they cannot be asked to come too early because of financial considerations.

- a. Days set aside for examination of all new students: Monday, September 20–Friday, September 24. Using a 7-hour day for examination (or a four-hour and three-hour shift when possible) and scheduling two examinations at once, every ten minutes apart, it is possible to examine 84 students a day. In five days 420 students could be examined. There are usually about 320-330 freshmen and 90-100 students entering with advanced credit. The examination begins at 8:30.
 - b. Day set aside for examination of all sophomores and upper-classmen electing physical education activities: Saturday, September 25. This examination includes only heart and lungs, height and weight, and consumes only 10 minutes. Further (more extensive) examination should be given if needed. Beginning at 8:30 and scheduling eight examinations in that hour and every ten minutes thereafter (12:00–1:00 excepted) it is possible to examine 338 students. There are usually about 270 sophomores and 130 juniors and seniors. The sophomores and 68 others can be done Saturday, the rest the following week by the medical staff.
 - c. The organization of room facilities for this is simple. Four of the examinations can be conducted in the medical offices; the other four in the offices used for teeth and eyes and nose. One laboratory technician should be retained in case of need.
4. Costs
1. Old students. The cost is as follows: examiners, \$200.00; recorders, \$22.40; technician, \$10.00; total, \$232.40.
 2. New students. (a) one day: examiners, \$250.00; recorders, etc., \$87.80; technician, \$30.00; total, \$367.80 per day. (b) Five days @ \$367.80 makes \$1,839.00.
 3. Supplies, etc., \$50.00.
 4. Grand total, \$2,121.40.
5. Publicity
- a. Notice in catalogue
 - b. Printed leaflet sent out from registrar's office with their notice that credits are accepted. This notice calls for Boulder freshmen the first day, Denver the following day and a half, other freshmen Wednesday afternoon through Friday.
6. Supply of cards and slips: history cards, medical cards, posture and measurement cards, appointment slips for first examination, later examination and conferences, cards for motor and rhythm tests, cards stating number of academic hours student may carry, schedule cards, slips for locker and dressing room numbers.
7. Securing of examiners and help (this should be done at least six months before the examination and the most competent persons available selected).

II. Smaller aspects

1. Supplies—order early.

a. Office:

1. Each desk should have the following equipment: 1 pen tray, 1 fine pointed pen, 1 eraser, 1 box of clips, 1 scratch pad, 1 large blotter, 1 small blotter.

2. 1000 envelopes manila—6 x 9.

b. Medical: chemicals for laboratory, tongue depressors (for throat office), alcohol (for each office), cotton, gauze and adhesive tape (for each office), 4 tape measures (heart office), scissors (one for each medical room and posture room), disinfecting solution (all offices).

c. Instruments: 2 sets each of dental and nasal instruments, 4 blood pressure apparatus, 2 sciascopes, 2 sets of ear instruments, 1 Fleischer blood test instrument, 4 stethoscopes (brought by doctors).

d. Apparatus:

1. For doctors: 2 sterilizers (one placed in eye office, to be used by dentists and nose and throat specialists; other in heart room); 1 stadiometer, 1 scales (no weight shifting), 1 height weight chart.

2. For physical education staff:

a. For offices: 1 camera, and large supply of films, 1 sterilizer, 1 foot o'print machine, 1 dozen tape measures, 1 spirometer, 1 hand dynamometer, 1 case to test chest muscles, 1 case to test shoulder muscles, 1 leg dynamometer, handle and base, 2 plumb lines, 6 soft pencils, 2 pieces of tape 1½ yards long.

b. For gymnasium and dancing room: 5 stop watches, 5 basketballs, 1 target, 1 bom, 1 box of chalk, 1 piano.

e. Towels and sheets: 8 towels in each lavatory each day, 100 towels in shower room each day, 100 shower sheets each day.

2. Furniture: Order early. Consists of the necessary chairs, tables, screens, etc.

3. Detailed plan of examination

a. Appointments are made at desk in hall (given slip and instructions).

b. Immediately following the making of an appointment, the student goes to a booth at the west end of the hall for her clinical history, which is taken by a nurse. Then she goes home.

c. When the girl comes for her appointment, she reports at the appointment desk. Her appointment is checked off here on sheets. She is then sent to the matron, who assigns her a dressing-room and instructs her to take a shower and put on her robe, coat, shoes and go out of the door marked exit. The matron takes care of any valuables.

- d. Here the floor manager meets her and takes her to the table across the hall. All cards necessary for the examination and the history card are placed in an envelope with the student's name on it. The envelopes are in the order of the appointments.
 - e. The girl is then called into the first office (dentist's) by the recorder who takes her cards.
 - f. At the end of this part of the examination, the recorder gives her her cards and sends her to the next room (connecting).
 - g. At the end of the next part of the examination, the recorder gives her her cards and sends her to the next room (connecting).
 - h. A floor manager meets her when she comes out of the ear, nose and throat office and takes her to one of the heart booths.
 - i. From this office she goes into the laboratory for various tests.
 - j. Thence into the camera room.
 - k. Thence to foot booth.
 - l. To measuring booth.
 - m. To one of posture booths.
 - n. To final doctor, who looks over all her records so far . . . gives all cards to the girl and sends her to dressing room to report to matron.
 - o. The matron instructs her to put on her gymnasium suit and go to the gymnasium on second floor for the motor and rhythm tests. Takes all cards.
 - p. The girl reports to the instructor and gives her the cards. Here she is tested in five events. . . . All results on card.
 - q. From the gymnasium she goes to the danicng room and is given a rhythm test, the results of which are recorded on card.
 - r. Then she takes her manila folder full of cards and goes to a table in the hall where activities are assigned on the basis of all of the examination. The cards are left here. She goes then to a table side of this one and receives a locker assignment. Worn out, she proceeds to the basement. The statistician and her assistant now work on the cards. They are in a classroom on the second floor.
4. Prepare a list of instructions to secretaries, recorders, nurses taking clinical histories, appointment clerk, matron, floor managers, doctors, technician, physical education staff.

A. General instructions to examiners

- a. Follow order on card, if possible.
- b. See that all items are filled in or checked.
- c. Please make it easy for recorder to hear.
- d. Be sure to fill in recommendations if there are any.

- e. Make each girl feel that you are interested in her.
- f. Be professional and at same time approachable.

B. Special instructions

[The detailed instructions for procedure which follow the listing of each set of workers in the original material are omitted here except in two instances, of d and h below.]

- a. Doctors. . . .
- b. Camera operators. . . .
- c. Examiners giving strength tests, etc. . . .
- d. Doctor giving final check.
 1. Dictate all summaries and recommendations and see that they are placed in proper spaces.
 2. Order cards to be sent to parents advising them of any defect or other unfavorable condition.
 3. Give appointments for further examinations.
 4. Give appointments for special conferences when needed.
 5. Decide on number of academic hours each girl may take and fill in card and give to her.
 6. Put O.K. or "not test" on motor test card.
 7. Try and enlist girl's interest in her health.
- e. Instructor in charge of motor tests. . . .
- f. Instructor assigning classes. . . .
- g. Statisticians. . . .
- h. Recorders
 1. Each card must be dated, and the class filled in in space for same.
 2. Records must be written with fine pointed pen. They should be printed if possible, be neat and legible (see model attached). Use erasers when a change has to be made. Be absolutely attentive and accurate.
 3. Use only abbreviations on attached sheet.
 4. At end of examination all items should have been filled in or checked. If they are not, tell examiner quietly.
 5. Put all cards back in envelope and give to student.
 6. Direct her to next room.
 7. Go to the door immediately and invite the next person to enter.
 8. Put instruments in sterilizer and remove when necessary.
 9. Your room should have an atmosphere of dignity and quiet.
 10. Please leave your desk orderly. Secure any new supplies from the secretary.
- 5. Final preparations
 - a. Send letters to doctors, enclosing sample history, medical measurements, motor test, and "notice to parents," and registration admission cards. Give the hours of examination.

- b. Send letters to recorders and enclose appropriate card to each one, together with a list of abbreviations with which they must become familiar. Statement of hour of examination.
- c. Give copies of technique instructions with which they must become familiar to physical education staff. Assign to them the arrangement of furniture in various rooms, and the distribution of supplies (except office) and the preparation of gymnasium for tests.
- d. Assign room with lavatory for use by doctors.
- e. Same for other help.
- f. Have secretary (1) make appointment sheets for freshmen and sophomores, (2) make sheets with locker numbers, (3) make out cards with name of each activity on separate cards, with space for each hour activity is held, and numbered to the capacity of the class, (4) make signs which will label each office, dressing-room, entrance and exit, (5) make final arrangements for heating, (6) furnish each table with office supplies.

Registering the Student.—In many schools students register for their physical education classes as they register for other classes and the physical education department is informed from a central source concerning the pupils enrolled in its classes. It is a simple matter to register for physical education in schools where the pupils are given a limited program and classified only by grade levels but for those departments that wish to give a program of physical education adapted to the individual needs of the students such a method can never be satisfactory.

Objections to Central Registration.—Some teachers object to central registration on the grounds that by this method they cannot keep the sizes of classes properly balanced. This objection is not insurmountable: if the department would give the central office a list of the maximum class size which can be handled for each of the various activities it should be able to hold the enrollment of the sections to the proper numbers. There is the other objection that those who schedule pupils do not understand the differentiations between elementary, intermediate, and advanced work in the various physical activities and therefore do not schedule wisely. If the department would give to those who register students a statement of the prerequisites for each course in terms of skills and a card-index record of the skill levels already attained by former students this difficulty could be eliminated. With central registration should go the privilege of making adjustments in the schedules of those pupils whose records have been misinterpreted so that they

have been scheduled incorrectly. Also there should be but a tentative scheduling of new entering students until they can be classified for activities.

By the observation of such precautions objections to central registration can be overcome although the more a department varies its program to meet the requirements of all types of girls with varying capacities and skill levels, the more complicated does registering become, with increasing importance that the department keep its finger on the pulse of the school registration procedure.

The ideal arrangement is for the physical education department to examine, test, and classify the student before registration and to instruct the schedule committee in regard to the type of work for which each student should be registered. This would require examinations and motor tests to be given speedily so the results may be checked, students classified, and the classification reports turned over to the proper authorities before registration starts. Few schools are so organized and staffed that all of this work can be completed without delaying the other school work so that those schools that do desire their pupils to be registered for physical education according to their physical needs and capacities either give a tentative registration, at first, awaiting definite information, or put off the physical education registration until the department can give its examinations and tests. Such tentative registration is usually by grade level permitting the department great leeway in rearranging the schedules of the minority who upon examinations and tests are found to be incorrectly scheduled. Under such arrangements it may be satisfactory to have physical education classes scheduled by others than the physical education staff itself but in all situations where the scheduling agents will not pay attention to classification lists and where their decision is final, it is imperative that the physical education department schedule for its own classes.

Departmental Registration.—Many physical education teachers prefer to register their own pupils; thus they can control the placement by classification and skill levels. The majority of college departments follow this plan as do some high schools. With this method there is opportunity to supplement registration by the assignment of lockers and dressing rooms, presentation of copies of department rules and regulations, information about fees, costumes, and towels, and the issue of keys, padlocks, and costumes, if such are to be issued. To assure that all details are properly taken care of, the routine procedure must be carefully worked out in advance. It should be planned as thoroughly

in all details as is the preceding example of the procedure for examining pupils.

Routine Registration Procedure.—There are many details that should be considered in planning for registration of physical education classes. The procedure will vary with varying situations and methods.

In addition to a detailed list of advance preparations there should be an instruction manual of procedure with the student. Detailed instructions for all workers should be written out in full covering every detail of work to be done at each table. Copies of instructions for each worker should be placed at that worker's table and the chairman of registration should make the rounds of all tables at the opening of each hour to check that if new workers have come on duty they understand all instructions and how to perform all duties. If one worker is careless or remiss, mistakes will be made which may seriously disrupt work. Student help can be used to advantage if none but those who are careful and dependable workers are selected.

Forms for Registration.—It is important to have on file a copy of the complete *school and work hour schedule* of all students who are taking work in the department so that should the need arise to change a pupil from one section to another the transfer may be planned wisely and quickly. At the time of registration, in case other subjects have been arranged previously, it is a great time saver to have a copy of the student's day and hour schedule to consult as the physical education hours are being selected. It is time consuming and ineffective to listen to an oral recital of class hours with its constant changing condition as first this and then that assignment comes to the mind of the student; almost equally ineffective is the formal listing of assignments by subjects since, in the rush of handling large groups, two might be listed at the same hour and be unnoticed for some time. The use of schedule blanks eliminates all of these difficulties and speeds up work considerably. The most common size is four by six inches since the three by five-inch size is too small for practical service and the five by eight-inch size is unnecessarily large for this particular work. These four by six-inch papers file easily in five by eight files using the five by eight file guides. They can be procured in pads and in that form are less expensive than stiff cards which are not at all necessary. They can be made by the typewriting class if printing costs are prohibitive.

Figures 47 and 48 show two common forms of *departmental registration cards*. These should be a special color so that at a glance the color and size proclaim them for what they are. Some departments use

Name..... Year.....

REGISTRATION CARD

FIRST SEMESTER	SECOND SEMESTER
Session Room	Session Room
Class	Class
Gymnasium	Gymnasium
Swimming	Swimming
Restricted	Restricted
Reason Excused	Reason Excused
Date Excused	Date Excused
Re-entered	Re-entered
Posture Grade	Posture Grade

FIG. 47.—High school registration card: color, salmon; size, three by five inches. (Card reproduced by courtesy of Miss Mary R. Wheeler, Director of Physical Education for Girls, Proviso Township High School, Maywood, Illinois.)

Name..... P. E. 51-52-53-54
(Circle)

First Half Semester

Class..... Da. & Hr.....

Second Half Semester

Class..... Da. & Hr.....

Locker

FIG. 48.—College registration card by seasons: color, salmon; size, three by five inches.

one color for new entering students and a second color for former students.

Figure 49 shows a good sample of *locker assignment* card. It offers excellent opportunity to educate on dressing room matters.

Granting Deferments.—Permission to defer physical education work should be granted in writing. Usually the department uses a duplicate form, sending the original to the school office and retaining the

UNIVERSITY OF COLORADO
DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN
LOCKER ROOM INSTRUCTION

Your locker number is.....

Your dressing room number is.....

1. **LOCKER.** Keep your locker locked at all times. Keep your locker neat.
2. **DRESSING ROOM.** Always hang up your clothes. **NEVER LEAVE MONEY** or jewelry in dressing room. Clothes found outside of dressing room will be confiscated.
3. **SHOWERS.** Showers are a part of the regular class work for which class time is allowed. Take one shower sheet only. Take a warm shower and follow it with cold. Place shower sheet in large basket.

This is your room--help keep it clean.

FIG. 49.—*Locker assignment slip: size three by five inches. (Reproduced by courtesy of Miss Clare Small, Director of Physical Education for Women, University of Colorado.)*

carbon copy. Figure 50 shows a sample form for such use, the blanks being padded in two colors, one for the original and a second for the copy. The original is designed so that any special agreements with the student may be recorded in writing at the bottom of the form and detached for the student to retain as a reminder. The second sheet, the carbon copy retained by the department, will contain both the information for the main office and that for the student.

The procedure for granting deferments should be as follows:

1. Record in writing in duplicate all permits to defer work.
2. Grant no deferment or reprieve without first consulting past defer-

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN
DEFERMENT BLANK

Registrar's
Copy

Name..... Date..... Semester..... 19.....-19.....

Class..... Number of physical education credits received to date.....

Reason for Deferment:

Doctor's recommendation..... Self support, partial or whole.....

Schedule difficulties.....

Other reasons.....

Promise: I understand this deferment merely postpones my physical education required until next semester. I fully intend to make up this work before I graduate.

Deferment Granted

Signed

by..... (Student)

Requirement to meet in exchange for permit to defer work:

Student's Copy

FIG. 50.—Sample form for deferments, five by eight inches in size and put up in pads of alternate colors, pink and yellow. The second copy differs from Registrar's copy in the omission of words "Student's Copy" at lower right corner and of perforating dots in the lower half and in the substitution of the words "Department Copy" in upper right corner.

ment and reprieve lists to learn the petitioner's past history in this matter. She may be a chronic petitioner.

3. Require students who petition for deferment because of outside work schedule to have an employer's card properly filled out and signed and presented to the office before giving consideration to their petitions. (Fig. 51)

4. When granting a deferment because of a difficult schedule of class assignments, check the schedule copy with the registrar's office before making the final decision. At times such checks show that the student has filled in imaginary classes.

5. Usually it is for the student's best interests not to grant a deferment. Each deferment granted is an admission of inability to serve the

THE UNIVERSITY OF NEBRASKA
 Department of Physical Education for Women
EMPLOYER'S STATEMENT

I employ M
 a student at the University, the following hours:

Mondays to and to Tuesdays to and to

Wednesdays to and to Thursdays to and to

Fridays to and to Saturdays to and to

The nature of employment is

.....

The place of employment is

.....

The term of employment is years; months; Indef.

Signature of employer

Date

FIG. 51.—Form for employer's statement. Color, blue; size, five by eight inches.

student concerned. However, if the school is not prepared to serve the student in a manner which is expedient in her case, a deferment should be granted by all means. In exchange for release from departmental requirements, it is advisable in most cases to exact from the student a promise, the execution of which should be reported to the department at regular intervals. For example, if a girl is employed in a store so that she has little opportunity to be out of doors, exact a promise that she take Sunday hikes which are to be reported; if a girl is released because of dysmenorrhea require that she take the Mosher exercise daily and report concerning it at stated dates; if a girl needs to be deferred but is undernourished, exact from her a promise that she will follow a specified diet and hygiene regimen and will report regularly for a conference.

6. Keep on file in the office copies of all deferments granted: keep in the active files all less than three years old.

Copies of Department Rules and Regulations.—Small departments usually find it sufficient to have a typed copy of the department rules and regulations posted for the students to read, supplementing this by class announcements. The larger the department, the greater the necessity for rules and the greater the need to use some other medium than the bulletin board to reach the students. When the enrollment outgrows the bulletin board method, the mimeographed copy method is the one most generally employed. Since the financial reverses of 1931-1933, many large departments that heretofore put out printed hand books have found that they can function very well on mimeographed copies of rules. Some still use a printed form but have reduced it to a small folder condensing the former material. Written rules are usually supplemented by sundry minor rules announced verbally to classes and posted on bulletin boards. The major rules (those that affect the students' marks and class work, the neglect of which carries penalties either directly or indirectly) should by all means be placed before the student in writing in some way.

A sample mimeographed sheet of rules which is quite complete to give out to students for general purposes is as follows:

RULES OF DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN
Year 1936-1937

OFFICE HOURS

The Department office is open from 8:00 a.m. to 12:15 p.m. and from 1:00 to 5:15 p.m. except Saturday when it closes at 12 noon.

INSTRUCTORS

Consider your physical education class instructor your health adviser. Each instructor will announce to her classes the location of her office and her office hours when you may expect to find her for private conference when you so desire.

PROTECTION OF PERSONAL PROPERTY

Never leave your purse, jewelry, pens, books, etc., in a dressing booth during class. Lock your valuables in your locker.

CLASS WORK

You are expected to learn the rules of the activity and to acquire skill in its practice. Your course grade depends entirely upon the work you accomplish. Unsatisfactory work will receive a record of condition or failure.

SHOWER BATHS

You are urged to take a shower at the close of each exercise hour. The fee for the course pays for the use of towels and showers.

MENSTRUAL PERIOD REGULATIONS

Each instructor will explain the regulations for her class work.

ATTENDANCE AT CLASSES

You are expected to attend each meeting of your class unless deterred by illness, in which case you should bring a written excuse from your house mother, your physician, or the Health Service, to the *department office within two weeks* after returning to class. Absence from class for any other reason must stand as a cut, unless you are excused by your instructor *before* the class meets.

NUMBER OF CUTS AND EXCUSES PERMITTED

Within each semester you will be permitted three cuts, which must later be made up, or three excused absences, which do not need to be made up, or a combination of the two, with no more than three cuts. All that exceed this limit missed must be made up or you will receive an incomplete, except that any over three cuts makes a failure.

REMOVAL OF INCOMPLETES

For each cut taken you must make up 2 hours. For each excused absence beyond three you must make up one hour.

REMOVAL OF CONDITION

Passing satisfactory tests in work that was unsatisfactory will remove a condition.

ABSENCE REPORTS

Each week the absence report of the previous week is posted in the east entry on the north wall. Whether you were absent or not, look at this report each week to see if your name is posted there. It may be there by mistake. If so, report the error to the department office at once. Reports not challenged the following week stand as posted.

BULLETIN BOARD

You are responsible for all instructions posted on the department official bulletin board, north front of east entry way.

WOMEN'S ATHLETIC ASSOCIATION

Come out for intramural sports after school hours. Join a team and share in the fun. If you want to join a group and are not acquainted see the W.A.A. adviser in the Intramural office any day at 5 p.m.¹³

Specific rules for various activities are needed to supplement the above sheet of general rules.

¹³ Rules used at the University of Nebraska, 1936-1937.

Information Concerning Extracurricular Sport Activities for the Year.—It is a good idea to inform all students of the intramural program as they are registering for physical education classes. This can be done effectively and with no expenditure of time by having a copy of mimeographed or typed announcements to hand to the students after they have completed the full registration procedure, when it is permissible for them to turn their thoughts to other things.

Issuing Equipment and Supplies.—In schools where costumes, padlocks, towels, or sports equipment are rented out to individual students, procedure for the payment of rental fees, presentation of fee receipts, issuing of articles in correct sizes, and keeping complete records of the transaction should be planned out in the minutest detail and fully written into the work manual.

EQUIPMENT REPORT		
Instructor		
Day	Hour	
Date		
Equipment	Out	In
Arrows		
Bows		
Balls (Baseball or hockey)		
Balls (Basketball-Soccer)		
" (Sport-Volley)		
Bases		
Bats or Sticks		
Pinneys		
Tennis Rings		

FIG. 52. — Form for keeping record of equipment checked out to a class. Made up in pads of light-weight paper.

If the articles are issued to the student to keep for a period of time as if her own property, the procedure and records should be different from those required when the articles are merely checked out at the opening of a class hour and checked in again at the end of the hour. (Figs. 52 and 53.) If the student rents the article the presentation of the receipt showing that the rental fee is paid is necessary at the opening of the course. If a central registration system is in use the record is kept with the student's registration card: if there is not a central system each teacher accepts the receipts for

her pupils and checks them on the roll-list as paid. Whichever system is used there should be a follow-up checking on all who did not present their receipts at the first class meeting: such follow-up work will be needed at each class meeting until all have paid the fee. A deadline should be set after which the mark in the course is withheld or some other disciplinary measure is adopted for all who have not met the requirement.

Some schools that do not rent equipment and supplies do, however, furnish certain articles free of charge or for a deposit fee which is returned when the articles are returned. Some schools retain a part of the deposit to cover damage if it appears that damage has resulted from the student's carelessness.

Abandoned Equipment.—Privately owned equipment which has been left in the lockers or dressing rooms is usually considered the property of the department after a year of abandonment. Many departments sell it at low second-hand prices to students who cannot afford to purchase necessary equipment at standard prices. The money thus taken in is usually used for a student aid fund for departmental requirements such as costumes and towel fees. Some departments retain certain articles as departmental, though non-school owned, property and rent them at a low rate to students who cannot afford to purchase

EQUIPMENT RECEIPT

UNIVERSITY OF
SOUTHERN CALIFORNIA

DEPT. OF PHYS. EDUC.
WOMEN'S DIVISION

Name.....
Last
First

Address..... Telephone.....

Padlock No..... Combination.....

Basket No..... Locker No.....

Date.....

I hereby acknowledge receipt of the following equipment (check articles received)

Blouse..... Bloomers..... Belt..... Swimming Suit..... Towel.....

(Signed).....

FIG. 53.—Form used to check out personal equipment. White cardboard five by eight inches in size. (Reproduced by courtesy of Miss Germaine Guiot, Director of the Department of Physical Education for Women, University of Southern California.)

equipment. Tennis rackets are perhaps the most usual type of equipment left unclaimed by students. Such rackets can be made to do duty for many students by numbering each and arranging a check-out schedule by hours. The attendant or class monitor is given a copy of the rental schedule and so knows just what students are to be given the equipment each period and it is checked out and in again by the hour. In this way the fee to be charged each student can be very small since each racket is used by a number of students throughout the season and so brings in a good total fee for its use. Enough should be charged to cover the expense of restringing as necessary.

Costumes.—Many schools that supply costumes issue them once

a week; others issue them daily.¹⁴ Privately owned costumes that have been abandoned may be used for the advantage of students who are financially embarrassed.

Towels.—A clean towel should be supplied each student each time she comes to class so that there will be no excuse for placing a damp or soiled towel in her locker. If the school cannot furnish towels, the students should be requested to bring their own but they should not be permitted to put them in their lockers. According to towel service, schools may be classified as follows:

1. Those schools that offer no towel, laundry, storage, or shower service. This means, of course that there is no bathing after exercising. In service to physical education departments this represents the lowest order of school.

2. Those schools that offer showers but no storage, towel or laundry service. In this situation the student carries her gymnasium clothing and towel back and forth from home with her or keeps them tucked away some place about the building chancing it not to lose them, using a soiled towel most of the time and putting it away damp with her clothing unless, as some financially handicapped schools arrange it, there is a clothes-line stretched up in the dressing room on which she may hang the towel. This is better than storing soiled, damp towels away with clothing but it renders easy the promiscuous use of towels (a habit that must not be tolerated) and it affords little protection of private property.

3. Those schools that offer showers and storage but no towel and laundry service. This means storing away in lockers soiled and damp towels with all the unsanitary conditions attendant upon such practice. It is this system that produces so much of the evil odor that permeates gymnasium dressing rooms—this coupled with lack of ventilation for sweaty suits and shoes.

4. Those schools that offer showers and storage and for a special fee, a weekly laundry service. This system involves a storing of damp towels in the locker but is an improvement over No. 3 above in that at least there is a clean towel once a week. It involves the weekly collection of soiled towels from the students by a system of checking out to the student fresh supplies. It also involves a check system that permits no student to have more than one towel at a time and requires a final towel handed in at the end of the term in exchange for the one origi-

¹⁴ For detailed description of the procedure for a rental system see the following:

Frank Kleeberger, "A Rental System for Administration of Athletic Clothing," *Journal of Health and Physical Education*, October, 1930, p. 24.

Lloyd L. Messersmith, "Administration of a Gymnasium Box Locker Plan," *Journal of Health and Physical Education*, September, 1933, pp. 28-30, 62-63.

Harry A. Scott, "The Solution of the Locker Room Problem at the University of Oregon," *The American Physical Education Review*, December, 1928, p. 671.

nally checked out at the beginning. Many schools give out a clean towel only in exchange for a soiled one or for an additional fee. This discourages carelessness and the loaning of towels to others. The student unable to turn in a towel at the end of the term is required to pay an additional fee to cover its loss, or credit may be withheld, or some forfeit may be claimed as the school would claim for a loss from any other department. This method is an improvement over the others listed above but it still has much to be desired. If this system is in use only for those taking required work, these students are importuned to loan their towels to those who come out only for elective work and so wish to escape the payment of the fee.

5. Those schools that offer showers and daily towel and laundry service. This is the only sanitary and hygienic system since it means a fresh towel after each class, and no storage of damp and soiled towels, no excuse for not using the shower for lack of towel, and no excuse for using a towel previously used by another. Many schools feel that they cannot afford this system or cannot add to the students' already existent financial burden the fee expense to cover it. Those schools that can arrange it, however, like this system very much but even this is not perfect if students who come only intermittently, and therefore may not have paid the fee, try to avoid it by furnishing their own towels and keeping them in their lockers or by borrowing the use of one already used before it is handed in for the laundry basket. This can be avoided by exacting a blanket fee from all who use the facilities. This calls for a special check system to use for the casual comers.

For a school that cannot see its way clear to the expense of this service there are ways and means of meeting it. One way effectively used by some schools is as follows:

1. Have each student bring two towels from home, each well marked with owner's name.
2. Have each pay the minimum fee necessary to cover laundry service.
3. Have all towels thrown into the department service as if owned by the department.
4. The loan of two towels from each student is not exactly necessary but one each is not sufficient for the extra number needed in constant reserve between laundry deliveries. Some students cannot afford to bring two towels and a few can afford none. These students may be excused from all or part of the obligation by special confidential arrangement with the department: their shortage is covered by the two towels furnished by all others.
5. During the year each student will have a fresh towel to use each day although not necessarily her own: she takes whatever is handed out to her or whatever she finds on the top of the pile, depending upon the system in use. Of course, some students will contribute very large and heavy

towels, while others will bring very small or very thin ones and it may behoove the department to hold back, for the reserve supply, the less desirable ones. Some of those students who furnish the better towels will resent having to take their chance at using the poorer ones but here is a chance to teach some lessons in good sportsmanship.

6. At the end of the year each student claims her own towels according to the number recorded after her name as supplied and according to the names on the towels.

7. After the term is closed there will be some towels left unclaimed by careless students. After all effort has been made to find the owners those still left may revert to department ownership to be used for reserve supply for those who cannot afford to bring towels. Gradually a large supply is built up in this way and, while this lasts, one towel from each student may be all that is required.

The above system has been used successfully with a fee of 25 cents per pupil per term to cover the laundry bill. The loan of two towels and payment of 50 cents a year is asking but little for the sanitary and hygienic returns received.

Period Between Registration and the Start of Regular Work of the Year.—In many departments the examinations and tests must be given after registration and if there is a lack of sufficient staff they run into a week or more of class time. For such situations appointments should be given during registration and class assignments must be tentative pending final classification as a result of examination and test findings. As the staff is busy full time at this examining and testing work, there is no time to meet classes so that those who were not being examined the hour of their class meeting are usually dismissed with the understanding that the examination appointment is a substitute for all class work missed and if the appointment is missed it counts as absences from as many class meetings as it represents. In public schools the student thus temporarily free is instructed to report to study hall or is turned over to student leaders. The college girl can use the time as she chooses and for one who will use it wisely, it is a boon in this first week of adjustments to so many new situations. In many schools with large physical education staffs, one teacher is assigned each hour the task of meeting all classes scheduled for that hour, giving hygiene talks and orientation lectures to all students who are not being examined while the other teachers give examinations and tests.

During these opening days the problem of giving physical examinations and physical capacity tests to all new entering students must be as carefully planned as the regular teaching work or time will be spent

ineffectively. The following duties must be performed during this period:

1. Give appointments to all for examinations and tests.
2. Instruct all who assist with any work of the period.
3. Give the examinations and tests.
4. Keep all students who come any one period busy while a few of the group are being examined and tested.
5. Classify students according to findings of tests.
6. Make activity assignments according to classification and notify the students.
7. Explain and post copies of department rules.
8. Assign lockers.
9. Instruct student leaders each day for the following day's work using many different students for this in order to scatter the experience.
10. Before each day's work begins instruct the students who are to record during the day.
11. Devote an extra hour at the office each day for the day's preliminaries, going over the findings of the examinations and tests of the previous days, keeping up on the classifying work.
12. Devote a special period of fifteen minutes to quiet each day for retention of mental and emotional poise especially necessary in the rush of the opening week.
13. Post each day the schedules of squad leaders and recorders and their duties for the next day.
14. Post special advance copies of department rules.
15. Each day post the examination schedule for the following day.

First Class Meetings.—Since much general department business needs to be accomplished at the first meeting of each class (business not related to the specific activity to be taught) all members of the class should be present regardless of menstrual period and any physical disabilities that do not keep the student away from all other classes. The students should be informed, in one of the preliminary school announcements, of the place, hour, and date of this first meeting and warned not to be absent and to appear for costume inspection in the regulation costumes prescribed for the activity.

There should be posted for all the staff a list of the meeting places assigned each class since outdoor classes will need to meet indoors for this first time and there will be confusion if not planned and announced well ahead of time to both staff and students. As the time for the class meeting arrives the teacher should observe the following procedure with whatever variations may be needed to meet the local situation and policies:

1. The instructor of the class should introduce herself so all will know her name correctly from that time on.

2. The name of the activity of the class should be announced and all who are registered for other activities should be sent to their correct meeting places.

3. The roll should be called from registration material. It would be well to combine costume inspection with this. The teacher should be in professional costume. As each girl's name is called she should be requested to step forward to have her costume inspected. If details are incorrect, it should be a matter between the teacher and the pupil alone. A student should not be embarrassed before the whole class on the very first day. It is advisable always to be firm about rules but to be kindly at the same time. As the costume is inspected and either accepted or rejected with advice as to changes, the student should take a place indicated for those inspected. At the close of roll-call, those present whose names are not on the roll-list will be left in the place of the original group: either it is a mistake on the student's part in coming to the wrong class or a mistake on the department's part in not having her on the roll: in either event the mistake is clearly indicated and should be rectified at once as far as possible. Each record should be completed sufficiently for each girl to know exactly what to do the next time and at the end of the hour final official information should be obtained from the department office in regard to each error.

4. The following announcements should be made:

- a. Inform of the exact minute by the clock the class is to start and to be dismissed.
- b. If an out-door activity, inform where it will meet after this in good weather and where in inclement weather, including instructions as to what to do in event they are not sure whether the instructor would consider the weather good or inclement.
- c. Explain all rules and regulations of the department, calling for questions concerning them.
- d. Explain all details of dressing and locker and shower room procedure for students as they prepare for class and as they dress at the close of class.
- e. Explain any special rulings about menstrual period procedure that concerns the activity.

If registration was carried on by the home room teacher, the principal's office, or a general registration committee rather than by the physical education department itself, time will have to be given in the first class meeting to the assigning of lockers and routine details of registration procedure not already cared for.

With all of the above procedures taken care of, the routine work of the school year is ready to begin.

CHAPTER XIV
ADMINISTERING THE PROGRAM

"The secret of success is constancy to purpose."
—DISRAELI

THE PROGRAM planned, rules and regulations determined, the departmental schedule adopted, the budget settled, facilities, equipment, and supplies obtained and put in readiness, the teaching staff procured, the examining, testing and registering of students completed—all these preliminaries disposed of, there remains but the task for which these preliminaries exist—that of putting the plans into effect and doing it in such a manner that the education of the child, such as can be obtained through physical education, can go forward. All the preliminaries, except the procuring of the teaching staff, have been discussed in previous chapters. There remains yet to be covered in the administering of the program the routine work of the year, which will be discussed in this and following chapters.

THE REGULAR ROUTINE OF THE YEAR

The Director's Routine.—Having prepared the complete departmental work manuals before the school year started, the head of the department needs only to take time occasionally to check on the progress of the work. All routine work that is well organized will run along smoothly with little attention from the director and she will be free, aside from her actual teaching, for outside contacts in the interests of the department, for work in educational organizations and for promotion work for future departmental developments. These are important tasks which should fill no small part of her work schedule.

The Secretary's Routine.—The person in charge of the office should be familiar with all instructions to all other workers and should have at hand a copy of the complete departmental manual. She should understand thoroughly all instructions and her relation to the work of all other workers. Her special concern however is with her own work calendar and set of instructions which outline the list of things she is

to do at stated times (daily, weekly, and monthly) and how to do them. Her principal tasks are meeting callers at the office, filing, preparing reports, keeping class records, preparing purchase orders, keeping inventories, checking work calendars for the director, taking care of bulletin boards, keeping the minutes of staff meetings, keeping finance records, typing test papers for instructors, checking attendance records, excuse and make-up slips, and receiving complaints and referring them to proper persons for adjustment.

In a department with a number of staff members, none but the director should give orders to the secretary except as delegated to do so by the director.

Office Routine.—Office work will go more smoothly than otherwise if there are kept in service four desk trays: one for papers demanding immediate attention, one for assignments ready to be reported back to the head of the department, one for work to be done after the immediate tasks are completed and one for papers of finished work ready to be filed away. The contents of desk drawers should be standardized for the sake of efficiency. A common arrangement is as follows:

- Top left drawer for current unfinished work.
- Center left drawer for unanswered letters.
- Lower left drawer for personal articles, toilet articles, purse, etc.
- Top right drawer for paper supplies and envelopes.
- Lower right deep drawer for loose leaf binders with copies of work manuals.
- Center drawer for small supplies such as clips, bands, pencils, pins, postage, etc.

For filing there should be a definite system worked out to fulfill the needs of the department. The most common methods of filing employ the alphabetical system, the numerical system, a combination of these two, the topical or geographical system used alphabetically, or the chronological system. Work in the field of physical education frequently calls for a combination of all of these: certain drawers need to be kept by one system for one set of information and other drawers by another system for a totally different set of information. Whatever system is adopted, a file guide should be made with each file drawer in the office listed with its subheadings. All papers, pamphlets, and catalogues to be filed should be numbered according to this guide. When filed by these numbers, any material in the files can be located quickly by consulting the guide. Although all members of the staff should be allowed to take

material *from* the files, no one but the official file clerk should be allowed to place material *in* the files. Such a rule is necessary for many people are careless in filing and a paper once slipped into the wrong folder or drawer or back of the wrong guide can be lost almost as effectively as if it had been destroyed. If only one person puts material into file drawers, that one can be held to strict account for the location of material.

Papers removed from the files should be returned to their place as soon as possible. Instructors should not be permitted to allow departmental papers to become buried among their own private work papers on their own desks.

Mail should be sorted immediately upon arrival and delivered to the proper persons. Departmental mail should be read with a red pencil at hand and those parts of letters demanding replies should be red-penciled to save the necessity of re-reading the entire letter when the reply is being formulated. As each letter is read the decision should be made concerning the date it should be answered and it should be placed in its proper file in the "Unanswered letter" file folder on the directors' desk. Such folders can be obtained with metal file tabs for removable index guides. They should be indexed "Today," "Tomorrow," "Few Days Hence," "Next Week," "Next Month" and "Hold for Reply." It is only an occasional letter that should ever be placed in the "Next Month" space. Business mail should be taken care of promptly and it is apt to be if it is sorted and filed in this manner so that it comes to attention. The habit of slipping letters into pigeon holes and drawers with all sorts of irrelevant papers and material is inexcusable: it no doubt explains the unbusiness like method by which so many professional workers take care of their correspondence. At the close of each day the letters back of the "Tomorrow" guide should be transferred to the "Today" guide: thus they are ready to claim attention the first thing in the new day. Likewise all others of the current week guides should be moved one step forward. At the end of the week all in the "Next Week" file should be transferred to the current week space. In the "Hold for Reply" space should be placed the carbon copies of all letters sent out, which call for replies. If the original had no carbon copy a scratch note of the inquiry should be placed on file. After the reply is received the note or carbon copy should be removed. This desk file space gives quick report of information asked but not yet obtained. It saves having to carry details in mind or checking on material put away in filing drawers.

Much time can be saved in letter writing if replies to inquiries are written directly on the bottom of the letter received. This is becoming an accepted method of reply in situations permitting informality. By employing such a method many letters can be answered by return mail and so disposed of at one handling—a matter to be considered in a busy office.

Routine Announcements.—Four bulletin boards or four departments of one large board should be maintained for the following classifications of announcements:

1. Notices demanding the immediate attention of the students.
2. Notices not particularly urgent at the present date yet none the less important.
3. Quasi-official notices.
4. Students' notices of G.A.A. activities, etc.

There should be at least these four separate compartments in the bulletin boards and each should be headed as for example: "Rush Notices," "Departmental Notices," "Miscellaneous Notices" and "Student Organization Notices." All (faculty as well as students) should be instructed to post their notices in the correct compartments. As soon as notices are no longer necessary for the situation for which they were originally posted they should be removed. A student leader might well be appointed the task of clearing the boards but she should have the physical education teacher inspect those that are removed before she destroys them.

The Teacher's Routine.—The teacher's routine tasks are as follows:

1. Preparation of equipment for each class before the period opens and its prompt return to place afterwards.
2. Reports to the office of losses and breakage of equipment.
3. Reports to director of accidents to students.
4. Keeping roll-call records in a standard place in the desk so that superior officers or the department secretary can find them at once if necessary.
5. Using for symbols in roll-calls those agreed upon by the entire department.
6. Reporting to the office, as soon as possible, inability to meet a class or other appointments.
7. Keeping in order all parts of facilities and equipment under their supervision and refraining from disturbing the order maintained by others.

8. Putting in requests for necessary purchases well in advance of the date needed.
9. Keeping informed on current professional literature and newly published books.
10. Preparing for department files, up-to-date copies of outlines of all courses to be taught.
11. Conferring frequently on course material with all other teachers on the staff who are teaching the same activities.
12. Preparing at the close of each term a report of the work accomplished in each course.

Preparing Announcements.—It is not an easy task to prepare a simple announcement for students so that it will give the exact information it is desired to convey, covering the whole matter involved, yet being concise enough to attract their attention. Students will not as a rule pay attention to a long notice. It should be shorn of all information not pertinent to the issue so that the readers may readily get the gist of the matter correctly without having to extract it from irrelevant matter. However, in the desire to be concise, it is necessary to guard against the omission of important parts of the information that should be given. The writer of an announcement frequently forgets that while she knows what it is about the reader does not have her background of knowledge relative to the matter. A teacher who posts carelessly worded announcements can throw students into so much confusion in their efforts to guess at just what she does mean that they soon acquire the habit of paying little attention to her announcements. This creates ill-will on both sides.

Requests from a number of students for further information in regard to an announcement definitely means that it has not been well written. Rules for preparing announcements are as follows:

1. Give information in outline form rather than paragraph form.
2. Use for headings words that will give an exact and instant clue as to what the announcement is about and for whom it is intended.
3. Be concise but include all necessary information.
4. State exact places for meetings or delivery of reports, etc., as well as exact dates, days, and hours.
5. Sign all announcements in the lower right corner.
6. Always record in the lower left corner the date and hour of the posting of the notices. The date of the month and the day of the week should be stated in announcements, not the words "Today" or "Tomorrow." (How frequently do students see announcements left tacked to bulletin boards calling, for "Today," a meeting which was held many days ago with the notice remaining there, day after day since then, to

confuse conscientious bulletin-board readers. It is such carelessness that prevents correct student response to announcements.)

A typical poor announcement is as follows:

HYGIENE CARDS
DUE TOMORROW

Following such an announcement students ask, "Do you mean all hygiene cards or just those of the G.A.A. girls?" "Are the cards due today?" "May I have until four o'clock to get my card in?" "Where shall I hand in my card?" Teachers who post such notices have no right to become exasperated at student's questions. A correct announcement would be as follows:

ALL HYGIENE CARDS
DUE IN THE DEPARTMENT OFFICE
NO LATER THAN FOUR O'CLOCK
TUESDAY, NOVEMBER 5

Posted Thursday, October 31, 10 A.M.

MISS JONES

Routine of Attendants.—In small departments the teacher is frequently responsible for all but the actual cleaning work; in others the janitorial force takes on the additional duties of an attendant. In many large departments the attendant (dressing-room matron) is on full time duty at the check-out and repair counter with the work completely divorced from janitorial duties.

Attendants and janitors should be familiar with all pieces of departmental work such as are related to their own work. The swimming pool attendant should know the pool rules for students so he will know exactly what is expected of them in regard to their use of the pool, and the dressing-room matrons should know the department rules for students in regard to their use of dressing rooms. They should be informed as to office hours, class schedules, and departmental events that affect their daily routine in any way. Each should have a copy of his own special work calendar, including a list of preliminary tasks before school opens, daily, weekly, and monthly routines, and closing tasks of the year. In addition, each should have a copy of special work instructions explaining how to perform the routines in case special explanations are necessary on any point. The proper performance of duties should not be left to a chance understanding of what is required.

The dressing-room matrons need to check after each class that all lockers are locked. For a check on careless girls they should report to the office those lockers frequently left unlocked. Usually departments for boys have more trouble with damage, theft, and loss of towels than do departments for girls and for this reason they must devise careful check-out systems while all that is necessary for girls, as a rule, is to have at hand, without supervision, a supply of towels from which they help themselves and a clothes chute or a laundry basket into which they discard the used towels. There is usually so little loss from this system that it is cheaper in the long run than paying an attendant to check out towels. This is not true in some situations, however.

After each class the matron should check to see that individual shower faucets have not been left open. For turning off these shower faucets she should have at hand a long stick with an attachment on one end by which she can grasp the shower control handle without getting her clothing wet. It should also be the duty of the matron to see that the cots in the rest room are properly placed in reference to the light and that enough window space is kept open to assure a supply of fresh air with the room darkened except for this opening. She also should see to it that a chair or bench is kept at the side of each cot for personal belongings and shoes. A matron who is interested in the effective functioning of the department work will be on the lookout to give a word of warning to girls who are slow at dressing and are apt to be tardy to class. She will be ever on the alert for thieving and will be more interested in preventing it than in catching guilty parties, although she will do all in her power to help the staff to apprehend a thief when stealing has occurred.

The pool engineer should be required to file daily with the office a report of pool tests covering his routine work. The pool attendant should see that the bathing suits are sterilized after each use and are kept in repair, that the students observe the dressing room rules, that health permits to use the pool are on file for each who checks out a suit and that the rooms under her care are kept in order.

Details of much of the routine work of all attendants and janitors have been discussed in the chapter on the care of facilities.

Class Procedure for the Student.—The student should treat her engagement with the physical education department in a business-like manner and she no doubt will if, at the first class meetings, the instructor sets the correct atmosphere through her instructions. The teacher should make special efforts to be about the dressing rooms as well as

the class exercise rooms to see that everything is going properly and effectively both at the beginning and at the close of the class hour. At the first class meeting the student should be taught the routine of procedure for the entire hour. It should be similar to the following:

1. Come to the dressing room at time assigned.
2. If coming from another building put away wraps and accessories in place assigned for them.
3. Get costume from attendant, locker, or basket according to department requirements.
4. Go to a dressing booth or room as assigned.
5. Remove cosmetics.
6. Undress completely and put on special physical education costume.
7. Lock street clothes and all personal belongings in place assigned.
8. Report to class at time and place assigned, with whatever equipment is required.
9. Carry out class instructions, treating all class equipment with the same consideration that would be given personal property.
10. Put away equipment.
11. Return to dressing room.
12. Undress and take a shower, using shower sheets, bath shoes, foot-bath and towels if, and as, directed to do so.
13. Put soiled towels where directed to do so.
14. Get street clothes from storage and don them without waste of time.
15. Return gymnasium costume to its proper storage place.
16. Get wraps and accessories from place where stored temporarily.
17. Leave the dressing room promptly.

For swimming classes there are additional instructions such as:

1. Before class go to the toilet then take a thorough cleansing soap shower with the bathing suit thrown over the shower partition wall or curtain where the inspector can see it: better still, call for suit after taking the shower.
2. As soon as street shoes and stockings are removed put on bath shoes or sandals and at no time step in bare feet in the dressing rooms.
3. Remove all corn plasters, court plasters, and the like before going to the pool.
4. Walk through the foot disinfecting bath before entering the pool.
5. After class go directly to shower room and remove suit and take a bath to remove all traces of chlorine from the skin.
6. Deposit the wet suit in the container furnished for that purpose: never carry it into the locker or dressing rooms.

Making Up Classes Missed.—When a student has been given permission to make up work missed, she should be required to follow

the usual class routine except that instead of answering to roll-call she reports to the instructor, before roll-call, announcing that she is there to make up work and asking for class instructions. At the end of the period she should present a make-up slip (Fig. 54), properly filled out and ready for the teacher's signature after which she should turn it in at the department office or leave it with the instructor for final checking, whichever procedure is the department ruling on such matters. In a small department with only one teacher printed forms are unnecessary. The teacher marks the make-up in her final record book at the close

Form 175. 2-24-2M

UNIVERSITY OF COLORADO
DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN
MAKE-UP CARD

Name.....Class.....
Excused from.....Day.....
Hour.....
Date.....Instructor.....
Made up in.....Day.....
Hour.....
Date.....Instructor.....

FIG. 54.—Sample make-up form put up in pads on thin white paper three by five inches in size.

of the period thus closing the account without need of a slip for later reminder of the record.

Attending Rest Classes.—If at times the student finds it necessary to report to the rest room instead of to her regular class, in case such an arrangement has been made possible, she should have a rest-room attendance slip signed by the instructor, attendant, or student leader in charge of the room showing her presence there upon a certain date and hour. She should then hand in this slip at the department office or to her instructor according to the department ruling. The student herself should hand it in.

Transferring to Another Class.—If a student is forced by circumstances, that have arisen since registration, to change to another activity or another section of the same activity she should do so by taking up the matter first with her instructor. The instructor herself

might realize the need and initiate the discussion. If it is a small department so that the same teacher is in charge of both the old and new class it is a simple matter to drop her name from one roll-list and add it to the other, reporting the change to the school office where corrected copies of student's schedules are kept. But if it is a larger department where more than one teacher is involved the transfer should be made only by written record on a form prepared for that purpose with the form properly filled out to keep on file. (Fig. 55.) It should not be sufficient for a teacher to change a girl from the roll of one

DEPARTMENT OF PHYSICAL EDUCATION FOR WOMEN
Transfer Slip

Name..... Date.....

TRANSFER FROM

Class..... Da. & Hr.....

Instructor.....

Dropped from roll by..... Date.....

TO

Class..... Da. & Hr.....

Instructor.....

Added to roll by..... Date.....

Records corrected by.....

FIG. 55.—*Sample transfer slip put up in pads on light-weight pink paper, three by five inches in size.*

of her classes to the roll of another of her classes without the department office having the record of the change.

No student should be placed in a class after the terms' work is well under way without first having a conference with the teacher of the new class. After the teachers concerned are notified and have been given a chance to offer suggestions on the change and have agreed to it, then the office or the teacher of the class which the student is dropping should make out the transfer card for the student.

Dressing Room Organization.—There are six distinct systems of dressing room organization in use in physical education departments as follows:

1. That where the student calls at an attendant's counter and is handed the container which has been assigned her by name or number

and has been outfitted by the department with a clean costume and towel before each class hour.

2. That where the student calls at the attendant's counter for the container which has been assigned her in which she has stored her own costume and accessories.

3. That where the student waits on herself going directly to her own container and taking from it the things that have been stored there. They may be stored either by an attendant who has access to her storage space or by herself.

4. That where the student goes to the dressing booth assigned her and finds located there her own permanent storage space for gymnasium things and also a larger temporary storage space for her street clothes and accessories.

5. That where the student goes to the dressing booth assigned her and there is located her locker which she uses both as temporary and permanent storage.

6. That where the student must find her belongings among all others left hanging on hooks on the dressing room walls.

The first system is the most desirable. Details of its administration are given below as practiced a few years ago for the men at the University of Oregon. Certain details of administration would need to be altered to fit various local situations but in the main the plan still stands as a model of organization which would be equally effective for a girls' department.

1. Each basket is provided with a number and a nameplate on which appears the typewritten name and a typical signature of the holder. By this means it is always possible to determine the owner of the basket. In case any doubt arises as to the ownership, signatures may be compared.
2. No lockers are assigned; the student receives from an attendant his basket containing his clothing, a towel, and a lock and key. He locks his clothing in any empty locker and pins his key to his shirt with the safety pin which is provided.
3. Only enough lockers are provided to take care of the greatest number of men likely to use the gymnasium at any one time. . . .
4. No wet or soiled clothing is ever permitted to remain in the baskets. Students are required to place their uniforms in their baskets in a specified order, with the articles to be changed on top; thus the attendant may check the basket at a glance and replace the soiled articles with clean. In case the student does not request clean clothing the attendant makes the change if it is needed.
5. Socks, supporter, towels, and a lock and key are issued each time the basket is taken out. Other articles are changed whenever the

- need appears. There is no excuse for soiled clothing, therefore students are required to appear in clean costume at all times.
6. Baskets are taken out at one window and returned at another. When received they are checked by the attendant. If any article of clothing is missing the fact is noted on a "Complaint List."
 7. Each morning the "Complaint List" is checked by the clerk in the office and a notice . . . of the missing article is placed in the student's basket. In case the article is not returned in two days a bill is rendered the student which is payable at the business office of the university. Unless it is paid all university credit is withheld by the registrar.
 8. In case a student withdraws from school before completing the four years he is given a refund . . . according to the refund table . . . Missing articles of clothing, unless paid for, are deducted from the refund.
 9. A student who wishes only to take a bath or a swim is given a towel and a lock and key. His basket number is recorded on a pad. If the articles are not returned he is charged for them.
 10. A checking service for tennis racquets, golf clubs, and other articles is maintained in the basket room.
 11. Basket ball, volley balls, squash racquets, and other articles supplied by the department for recreation are kept in the basket room and are signed for when taken out, and when returned.
 12. No student is ever permitted to borrow articles of equipment from another student's basket.
 13. Torn clothing is mended in the basket room. A sewing machine and other necessary articles are provided with which to keep the material in repair.
 14. One full-time man is in charge of the basket room. He is assisted by part-time student help. During rush hours three men are needed to operate the system, at other hours two men are present.
 15. The basket room is open at all hours when the students are likely to use their uniforms. . . .
 20. No attempt is made to provide the student with the same articles of equipment he has turned in for laundering. When a change is made the same sized article is placed in the basket as was removed. Enough extra clothing is always kept on the shelves to take care of the change immediately.
 21. A man "going out" for athletics may check out of his basket those articles of clothing which are necessary to his activity. He is required to sign for these articles . . . and the slip is placed in his basket in place of the missing equipment. A duplicate copy is also filed. He is obligated to return frequently and have his clothing changed, and also to turn it in at the end of the season of his sport.
 22. Members of the faculty and administration use the uniforms under the same conditions as the students.

23. A permanent uniform record sheet is used which contains a complete record of all transactions with the student, and an agreement which the student signs relative to the use of equipment.¹

An important administrative matter in dressing rooms that are connected with swimming pools is the prevention of taking wet bathing suits to dressing booths. Special arrangements should be made for such suits to be disposed of in the shower room.

Class Procedure for the Teacher.—The teacher's procedure should check with that of the student. The younger the children, the greater the necessity for the teacher to be in the dressing rooms with them to admonish and advise.

Time to Start and Dismiss Classes.—The staff as a group should decide how much time should be allowed for dressing, both at the beginning and close of class. All regulations on this point should be uniform among the various teachers. There might be a variation by activities but there should be no variation by teachers.

The decision should be announced to all students and attendants and then it is the responsibility of each teacher to see that her classes are called and dismissed on time. These times agreed upon will not coincide with the regular class bells so that it is imperative that each instructor have a wrist watch that keeps good time and is daily regulated with the official school clock.

It is poor training for students if the teacher is strict on some days about starting and ending her classes punctually and then is lax on others. When the exact minute for the signal comes the class work should start. When it does start late the teacher's own work is penalized by shortage of time but when it carries over beyond dismissal time, pupils are apt to be late to their next classes which penalizes other teachers and creates ill-will for the department. To dismiss late and then attempt to make up for it by dashing to the dressing room and rushing the students thus throwing them into a state of nervous excitement is poor hygiene for all concerned.

The time agreed upon should be such as permits the majority of the students to dress without undue haste yet permitting no waste of time. If the time is too short for the majority there will take root in the dressing room an atmosphere of constant rush which will cause emo-

¹ Harry A. Scott, "The Solution of the Locker Room Problem at the University of Oregon," *American Physical Education Review*, December, 1928, pp. 671-72. (Mr. Scott reports in a letter to the author under date of March 29, 1937, that he follows almost the same plan at the present at The Rice Institute with improvement in the plan through a school operated laundry and certain refinements of minor details.)

tional disturbances that are especially bad for growing children. This will ultimately result in their disliking their physical education work since no normal person enjoys to work in an atmosphere of rush and hurry. On the other hand if the time is too long it puts a premium upon wasting time and develops bad habits. If a teacher is not sure of the proper time allowance for her particular situation she should try out different periods for a week and observe the reaction in the dressing room. She then is in a position to select the time which is best suited to the majority of students who attend to business but without rush.

There should be allowed a couple of weeks leeway at the opening of each year before getting back into the habit of dressing quickly but not nervously and without conversation with others to distract attention.

Some departments allow as much as seven minutes at the opening of the hour, which surely is quite unnecessary unless it covers time to report to an outdoor field. Of course the distance the student must travel from entrance to costume storage, from there to dressing room, from there to temporary storage of school clothes and from there to the class has to be considered so that each local situation must be a law unto itself. The number of showers available at the close of the hour and their location enter into the decision. In one of the junior high schools in Berkeley, they allow six minutes for dressing at the opening of the hour but most of the girls take less time and are out on the floor for free play awaiting class call. At the close of the hour they allow from ten to eleven minutes with the teacher in the room advising.² Five minutes at the beginning and ten minutes at the close are common allowances.

Supervision of Costumes.—Without close supervision of costumes students will not have their costumes laundered frequently enough. It is as much a reflection upon the teacher as upon the students when a class appears in soiled costumes. The struggle to have students take the costumes home frequently enough for cleaning is done away with when the school owns and launders the costume. Close supervision is also needed in order to persuade the girls to remove all their school garments, even the underwear. If they have to strip entirely there is less resistance against taking showers and also less against having separate underwear to use with the gymnasium costume—both highly desirable considerations.³

² Violet Richardson-Ward, "Typical High School Physical Education Period," *Journal of Health and Physical Education*, May, 1934, p. 32.

³ Clare Small, "Standards in Physical Education Costumes for Girls and Women," *Research Quarterly of A.P.E.A.*, October, 1934, p. 78.

Close supervision is also needed to be sure that the student wears the regulation costume. "Once laxity in this respect occurs, enforcement of the rule becomes difficult. . . . If the regulation is considered to have merit, it should be supported to the limit." ⁴ There may be exceptions to the rule but all exceptions should be granted by one person: there should be no opportunity for some teachers to be lax and others to be too unyielding in the enforcement of rules. If a student cannot afford the regulation costume it is better to find some way to provide her with one than to permit her to wear a different and cheaper costume and thereby be conspicuous in class. Frequently a student asks for exemption because she has a costume which she has used in another situation. This is a difficult question to answer justly from all angles of consideration. To the girl and her parents refusal seems unjust; but to the other girls who have complied with the regulations permission seems unjust. In many instances it is satisfactory to all concerned to hold in reserve a few regulation costumes that have been abandoned by former students which can be used for objectors by exchanging a second-hand regulation suit for the girl's own second-hand non-regulation suit with the agreement that at the close of the class work the regulation suit is returned to the department in exchange for the other suit held for a deposit. Some way must be found not to be unreasonable in demands yet to maintain the exclusive use of the regulation suit.

Many schools that hertofore sold costumes to the students at cost are now deterred by an injunction order of a Cleveland judge. Those who are absolutely unable to meet the financial demands of the department regulation costume are taken care of by most schools from a special fund maintained for such purposes for all work in all departments. Sometimes it is a Parent Teacher Association fund, sometimes the receipts from a school show or perhaps a special item in the school budget granted by the Board.

Unfavorable Weather.—The teacher should know well ahead of time exactly what class work she will substitute for outdoor classes in unfavorable weather. This work should be as carefully planned as the regular work and it too should have educational content as should the other: it must not be merely time-consuming as an emergency measure. If the activity job units permit of certain indoor practice, it should by all means be used at such times. If it does not occur too frequently, this is an excellent chance to review and brush up on rules, to give

⁴ Allen G. Ireland, M.D., "The Administration of Physical Education," *Journal of Health and Physical Education*, April, 1935, p. 22.

chalk-talks on formations and to answer questions which the students may never take the time to ask when actual playing can go on. Many games can be practiced indoors with certain modifications of equipment and rules.

In some situations two classes in different activities may be driven into the same room at a given period and must be handled together in unfavorable weather. Inter-class tournaments in recreational games are good to use for this emergency, as also is folk dancing. These hours can be made very enjoyable and highly educational if carefully planned and supervised.

Class Plans.—For favorable weather for outdoor classes and for all weather for indoor classes the class work should be planned for the whole course and put down in writing before the first class meets. Outlines of the work to be covered should be posted for the class at the opening of the course. The students should be made to understand that they will be held for a certain degree of acquisition of skill in the activity and for certain knowledge concerning it. They should be given skill tests in the activity at the opening of the course and these tests should be repeated at the close for comparative purposes. The results of these tests should be posted so the students may know exactly how they rate in ability in the activity and can see for themselves what work they must yet accomplish in order to finish the course satisfactorily. Each course should end with final tests so the teacher actually knows something about student progress in the course. Such procedure gives students confidence in the teacher's integrity as to class marks. Students enjoy physical education classes that have a definite aim. They grow to hate the class that is purely time-consuming—"just exercise." Whenever large numbers of students dislike physical education, it may be a safe supposition that the teacher has not organized her class work well and has not given the students a challenge to meet in the class hour. People like to achieve and to advance. They will hold themselves to any amount of discipline and hard work and will enjoy it if only they have a goal before them. On the other hand they have little respect for the teacher or the type of activity that does not inspire them to work.

Class Assembly.—As the students begin to come from the dressing room they should find the teacher in the class meeting-place ready to receive them. She should be dressed in professional costume and should have all class equipment ready before the bell rings so that she is free to answer questions and chat informally with those who come early, suggesting various things they might be doing while they wait

for class work to start. If the teacher properly motivates her pupils for these odd moments there will be no sitting around idly killing time. It is more difficult to motivate girls than boys to free exercise and play but a good teacher can do it and it is a part of her job to do it. Each student "doing nothing" is a reflection upon the teacher's ability.

This is the time of class when the teacher should check on those who may have joined the class temporarily for make-up work and to give them instructions. It is also the time to confer with students who wish to be excused, being careful to make a written record if an excuse is granted.

Calling Roll.—The teacher to whom educational work is an opportunity for service, not merely a means of earning a pay check, looks upon the calling of roll as an opportunity to get acquainted with her pupils as individuals: to her it is not a "bug-bear." The technique of roll-call involves such decisions as (1) where to take the roll—in the locker room, at the entrance to the exercise room, in the gymnasium, or on the playing field, (2) when to take it—as the student reports to get dressed, as she is dressed and leaves the dressing room, as she reports to class before it starts, at the opening exercise of the class, after class work has started to catch the tardies without a later check-up, at the closing exercise of class work, or at the shower room, and (3) how to take it. There are a number of methods of calling roll as follows:

1. Names called alphabetically by instructor.
2. Numbers called consecutively by students.
3. Numbered marks on the floor.
4. Alphabet alignment plan.
5. Squad name roll.
6. Squad number roll.
7. Posted lists.
8. Tags.
9. Card index.

The first, calling names alphabetically, respects the student's personality. It gives both students and teacher an excellent chance to learn quickly all the names of members of the class but it is a great time consumer if the class is large and for that reason undesirable in large classes.

The second on the list, calling numbers, is a mechanical device which in a certain sense robs the student of her personality as the possessor of a name but it is rapid.

The third method, number marks on the floor, is not particularly

a good one for most situations but as it is used to good advantage in some schools it is listed here. It involves the permanent markings of numbers on the floor with instructions for each student to take her place on her number when class is called. It eliminates the chance of cheating that is present with some of the other plans whereby a student may respond to others than her own name or number.

The fourth method, the alphabet alignment plan, is to have the class take formation according to names alphabetically with each student memorizing the names of those who stand on either side. Then if they are absent she takes her stand leaving a gap in the ranks to represent the absence. As the teacher passes down the line she has only to call for the name of the girl whose absence causes the gap.

The fifth and sixth methods, squad roll-calls, are the most used in large classes: they are good in that they train students to assume responsibility upon special appointment. There are many ways of organizing squads for roll-calls: by using names, by using numbers, by file formations, by rank formations, by checking in the dressing rooms as they come to dress, by checking as they appear on the floor ready for class, and by posted squad-lists.

The seventh method, by posted lists, is in use in one of the junior high schools of Berkeley as follows: (1) the roll numbers are painted on the wall above bar stall benches, (2) at three blasts of the whistle each goes to the bench under her number and sits down, (3) as the class does posture exercises from sitting positions the squad leaders note the numbers not covered in their squad groups and report these to the instructor, (4) these reported numbers represent the absentees and the roll is thus called in less than a minute and as the class exercises.⁵

By the eighth method, the tag method, the student is given a tag with her name or number on it which is hung on a board at the entrance to the gymnasium. The number method permits the same tag to be used in different hours. As the student reports to class she takes her tag from the board, under the supervision of a monitor, and drops it in a box. At the close of the hour the tags remaining on the hooks represent those who were absent. After the record is made this monitor replaces the tags on the hooks to be ready for the next class.

By the ninth method, the card-index plan, the roll is recorded by card file. As a member reports to class her card is turned on end. All not turned at the end of the hour are marked absent. This method is fre-

⁵ Richardson-Ward, *loc. cit.*

quently used for swimming classes and the students are free to enter the water at once without waiting for a formal call of roll. Others use this checking system in the dressing room but this presents an easy chance for dishonest students to cheat by not reporting to class later, although recorded as present.

In any method of roll-call the teacher must organize it to prevent cheating. It is not a good policy to let it be easy for students to cheat. There are those who feel that students should be put on their honor for such reports. If that is the correct attitude then roll-calls themselves are out of order and students should be put on their honor to be present. In every large group of persons there are bound to be some who will cheat, human nature being what it is: teachers should make it difficult for them to cheat but, when they do, there should be severe penalties rigorously enforced whenever a culprit is caught. It is not too severe punishment to fail, for the entire course, any student who is caught cheating in a roll-call whether in behalf of an absent friend or in presenting herself for roll-call and later sneaking out of class to avoid being marked absent. The authors' experience has shown that one failure thus given is soon campus news and the example deters all others who contemplate such action.

In situations where students report to two or more different classes within a week the card-index roll-call system saves the need of duplicating names in roll-lists. Figure 56 shows a card designed for such use. The activity for which the student is registered for Monday and Tuesday is recorded at the lower left, the activity for Wednesday in the lower center, and the activity for Thursday and Friday in the lower right. The period for these assignments is recorded in the second row at the right, being the same for all five days in the system in which this card is used. The one card therefore serves for all three roll-calls. In the office all are sorted by periods and subdivided by activities for Monday and Tuesday and used for those class roll-calls; before Wednesday classes start all are rearranged in groups according to hours and activities for Wednesday classes when students are grouped differently than on Monday and Tuesday; by late Wednesday afternoon all are once more rearranged in a third grouping according to hours and activities for Thursday and Friday classes; and by late Friday afternoon they are restored to the original groupings once more ready for Monday roll-calls. After a few days the person in charge of the grouping of the cards can shuffle them rapidly. The attendance record is recorded directly on this card thus saving transfer to three sets of roll-lists.

This card-index method is convenient when a student transfers from one class to another in which event the card is merely transferred from one roll-call file to another with the full record to date at hand for the new teacher to observe.

Roll-Call Symbols.—For roll-call records, symbols of some sort

Last Name:		First Name:														School class			
Address:										Phone:								Period	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Remarks
Mon.																			
Tues.																			
Wed.																			
Thurs.																			
Fri.																			
Mon. & Tues. Class						Wed. Class						Thurs. & Fri. Class							

FIG. 56.—Card index form for roll-call record. Size three by five inches. (Arrangement of card in use in East High School, Wichita.)

are necessary. A department with two or more teachers should use a set of symbols common to all. Those in general use are as follows:

- A—absent
- T—tardy
- E—excused before class
- A^E—absence excused later
- x—not exercising, menstrual period
- /x—taking only part of class work, menstrual period
- x—menstrual period but taking full class work
- R—reported to rest room in place of regular class
- —freshly laundered costume
- /n. cl.—not in costume
- ∩n.cl.—only partially in correct costume
- ⌘—one hour of cut made up
- ⌘—two hours of cut made up
- A^E and E^E—excused absence made up
- S—did not take a shower

Shower Roll-Calls.—If the taking of showers is a part of the class requirement the teacher, a student leader, or a group of student leaders, should procure the record of this part of the class activity. For elementary and junior high school age it is better for the teacher to supervise this personally. She can also check on the use of towels. If a towel is too soiled the student has not had a cleansing bath but has merely gotten wet and the teacher should speak to her about it. She should accustom the students to having her inspect their backs and pass judgment on their cleanliness as they come out of the shower. If the showers are group showers it is very easy for her thus to inspect their bodies for cleanliness. The teacher should create an attitude among the students of accepting her presence as friendly helpfulness and not as critical discipline. An easy informal manner is much better in such situations than formal orders and commands. In many schools, they take shower roll by numbers, the girl giving her number to a leader as she leaves the shower: all whose numbers are not called are given marks equivalent in penalties to tardy marks.

Special Procedure for Swimming Classes.—If the class instructor serves as life guard, then no student must be permitted to enter the pool (not even the pool room to be safe) until the instructor is there and all must leave when she does. At the University of Nebraska there is an electric catch locking the door leading into the pool room which can be released only by the instructor or attendant by pressing a button behind the supply counter. This prevents any student from disobeying the rule since the door is locked. When the instructor has inspected all as they have left the shower, in case she does this personally, or when she is ready to go to the pool to receive early students, she presses the electric button and releases the lock. Those instructors who prefer to go to the pool early should arrange to leave the bath and dressing-room inspection to the attendant or squad leaders: it should be definitely assigned to some responsible person who will enforce all details of the rules. If students will not readily obey the rule to throw their suits over the shower partition while taking their bath, the suits should not be issued until after their baths are taken.

At some schools students must pass the inspection of a series of monitors before entering the pool. These monitors assist the teachers by checking on health permits, foot condition for that day, trip to toilet before bath, bath taken without suit, body cleanliness, absence of bandages, etc., wearing of cap, use of footbath, and roll-call. Student

monitors can receive valuable training in this work and can be of considerable assistance to the attendant and teacher.

Before class starts the teacher should check to see that the rescue poles or life belts are in their proper places. A rescue pole should be kept on each side of the pool.

Reporting Attendance Records After Class.—As soon as she is free the teacher should transfer her scratch-card attendance records to permanent rolls, being careful to check back for tardies and for excuses which she may have granted at the opening of the hour. Also she should record any make-up work that was done during the hour, recording either in her book, if that is the ruling, or with the department office, and filing away the written make-up slip she has just signed, in event she is the proper one to keep it.

Most departments that are large enough to have two or more teachers on the staff have a central attendance-report system, some requiring of each teacher a daily report of all absences, tardies, and excuses for the day and others requiring but a weekly report. Such reports should be in writing and held on file until after the close of the term. As these reports come in to the office the records are transferred to the final record sheets. Such a system is highly desirable and in fact a necessity in departments where students may transfer from one teacher to another within a term or where classes are disbanded at the close of the fall and winter season and completely reorganized for the last half of the term with the possibility of a change of grouping and of teachers for each student.

In some departments there is no interchange of students among teachers once they are scheduled for a semester or what little there is, is easily recorded so that they do not have a central record system: each teacher is independent of the others and gives her own final reports to the principal or registrar. There cannot help but be a lack of co-ordination of work within the department that does not have a centralization of records.

The Closing Work of the Year.—The routine work for the closing of the year is in many respects different from that of the rest of the year. All members of the staff should be held on duty until it is completed. The four great tasks are the taking of inventories of all equipment and supplies, the giving of final tests, preparation of final marks, and conferring of awards, if any. In addition to these tasks, make-up classes must be offered, equipment, costumes and locks checked in, refunds given, finance records closed, statistics for the year col-

lected, and files cleared of old records. Procedures for these tasks should be written into the department work manual so that all who contribute to the performance of the work will know how to carry out the details of each task correctly.

In the dressing rooms the lockers must be emptied after giving the students at least a week's notice to remove their belongings before a given date. Each article not removed should be tagged with a record of the number of locker in which it was left and removed to a receptacle in which all abandoned articles are collected together.

Articles not claimed within a year after confiscation may be disposed of in any way the department or school thinks appropriate. Retention for one year is usually considered sufficient legally. Most departments sell the articles that are still unclaimed at the end of that period. The income from this source is added to the fine fund which is used to buy pins, thread, needles and mending supplies for student use in the dressing rooms and to cover other minor departmental needs not taken care of in the school budget.

CHAPTER XV

MARKS AND CREDITS IN PHYSICAL EDUCATION

"How little do they see what really is, who frame hasty judgment upon that which seems."

—SOUTHEY

MARKS

SCHOOL MARKS¹ are the *bete noire* of many teachers and the point of contention in frequent misunderstandings between them and their pupils. While some educators look forward to their elimination, others merely demand a revision of the present system. Rogers² points out that, while dunce caps, leather straps, rawhide whips, and rulers served "as a means of promoting scholastic activity" before 1900, since then "grades, marks, prizes, honors, medals, degrees, and other paraphernalia of extrinsic motivation are devised to perform services which birch whips formerly accomplished," but a growing tendency is everywhere discernible in present day education to reduce marking "almost to nil." He presents the following nine arguments against marks:

1. They are unscientific because they are
 - a. "based on subjective judgments of teachers untrained in statistical procedures."
 - b. not related to standardized norms.
 - c. not validated in terms of education objectives.
 - d. usually relate only to relative performances.
2. They are misleading since any given mark may involve a consideration of discipline, spelling, neatness, etc., and so do not represent scholarship alone.
3. They promote "spurious, superficial and insincere scholarship."
4. They are "a temptation to slipshod or downright poor teaching" with marks for motivation rather than subject matter made interesting in itself.

¹ The use of the word "grade" to denote a school mark in a subject is frequently confusing since the same word is also used to denote school placement. The word "mark" is a good substitute and should be used for the sake of clarity.

² Frederick Rand Rogers, "Education Versus the Marking System," *Education*, December, 1933, pp. 234-36.

5. They "stand as an almost insurmountable barrier between teachers and pupils."

6. They cause in pupils a desire to follow the teacher's instructions implicitly for the sake of the mark and hence prevent independence and self-reliance in study.

7. Their publication "by means of report cards, honors, prizes, etc., tends to develop anti-social feelings of inferiority or superiority in pupils."

8. They promote competitive attitudes in pupils.

9. They "develop the acquisitive spirit." "Refusal to pay pupils in marks for scholastic accomplishments will at least reduce the burden on those educators whose aim is to teach citizenship, social efficiency, or 'character.'" ³

We cannot ignore the fact that marks have had a place in the educational system for many years so that they cannot be wiped out suddenly without creating confusion. Also we cannot escape the fact that, embedded as they are in the school procedure, pupils do work for marks and they therefore can be used to advantage as motivation for better efforts at learning.

Methods of Marking.—Whatever method of marking the school uses in general for determining pupil standing in academic subjects, that should the physical education teacher follow in her work; then physical education will not be looked upon by the other departments, and by the pupils too, as outside the educational fold. Within any method the teacher has great leeway as to her mode of determining the actual mark whether that method be the 2, 3, or 5 division plan or any other. There are at present nine methods of giving marks in physical education as follows:

1. Two groups: passing or failing.
2. Minimum standard with additional points for additional performance.
3. Three groups: inferior, average, superior.
4. Five-division plan: A-B-C-D-E.
5. Percentage system on scale of 1-100.
6. Point system.
7. Increased points on a scale of values for equal performance increments.
8. Increased points for increased performance around a median.
9. Class-ranking system.⁴

³ Arranged from Rogers, *op. cit.*

⁴ Arranged from Helen M. Reily, "Basis for Grading in Physical Education," *Journal of Health and Physical Education*, October, 1935, pp. 40-41.

Of these nine methods, the five-division plan seems to meet with the most favor. The last named, the class-ranking system, is used in conjunction with the two, three, and five-division plans, the percentage system and the point system, most commonly, however, with the five division plan. This system has been in vogue for many years. Under it the two best known plans are the Missouri and the Cattell plans. By the Missouri plan ⁵ these five marks are distributed to the members of a class as follows: A to 3 per cent of the group, B to 22 per cent, C to 50 per cent, D to 22 per cent and E to 3 per cent. By the Cattell plan ⁶ they are distributed as follows: A to 10 per cent, B to 20 per cent, C to 40 per cent, D to 20 per cent, and E to 10 per cent.

Class-Ranking Versus Actual Achievement Plan.—Such plans as the Missouri and Cattell plans are frowned upon by some educators who do, nevertheless, agree to the use of the five divisions. Rogers maintains that marks should be "based on strictly objective tests, properly normed and with predetermined standards for A, B, etc., so that it will be possible for all to receive the highest mark."⁷ He criticizes the limiting of the number in any given class who may be awarded a certain mark. It does seem that, in the name of justice and fair play, all pupils who reach the standard that has been predetermined as the standard for a specific level should be given that standard's rating. If a class chances, as sometimes occurs, to be made up of above average pupils in a given activity why should a certain percentage of them be given the lowest level mark regardless of ability above that mark? If on the other hand another class is below average, on the whole, why should a certain percentage of these pupils be given the upper level mark when their attainments do not warrant it? Are we developing personalities or serving a mathematical God of Statistics who demands constant genuflection to the Law of Averages?

Objective Versus Subjective Marking.—A subjective mark is the mark representing the teacher's opinion or judgment. It is not necessarily based on fact; indeed in a system of subjective marking the teacher does not necessarily have factual information collected together. On the other hand, she may have much factual information about a pupil's ability in a course but her interpretation of the relative values of

⁵ Max Meyer, "The Grading of Students," *Science*, Volume 28, No. 243, pp. 249-50.

⁶ J. M. Cattell, "Examinations, Grades, and Credits," *Popular Science Monthly*, Volume 66, No. 367, pp. 368-70.

⁷ *Op. cit.*, p. 236.

the various divisions of these abilities may be entirely subjective; thus much so-called objective marking is in reality subjective. Tests that are definitely objective may be given within a course but one teacher may decide that these tests shall make up 100 per cent of the mark, ruling out all chances for opinion and subjective decisions; another teacher may decide that these tests shall make up 75 per cent of the mark and that other considerations of both subjective and objective nature shall make up the remaining 25 per cent; while still a third teacher may resolve that these objective tests shall make up only 50 per cent of the total mark. It seems somewhat impossible to eliminate the subjective completely even should it be desired. In those marking systems that claim to be completely objective, close scrutiny invariably reveals certain subjective features.

The nearer the mark approaches complete objectivity, the more certainly the pupil can figure out her own mark provided the objective system of marking is made public. This eliminates all chances for guesses at what the final grade may be with its attendant surprises when it turns out to be more or less than a pupil feels she deserves, as is so frequently the case when marking is done entirely according to the teacher's subjective judgment of the pupil's work. When a pupil receives a mark higher than she feels she deserves, she loses respect for the teacher's judgment and, if she is honest, she feels uncomfortable about her mark. If she receives a mark lower than she thinks she deserves, she feels resentment. Neither attitude is a desirable accompaniment of educational procedure. The chances for either attitude to exist should be reduced to the minimum: this can be done by a marking system that is as completely objective as it is humanly possible to make it.

But a marking system that is wholly objective has its faults. It would eliminate worthy considerations such as the measures of attitudes and cooperative endeavors of one pupil in her relation to the efforts of her team mates. In a team sport it is not sufficient to give objective tests of component elements of the game to arrive at a correct estimate of a person's skill in the game. One may be able to pass 100 per cent in all objective tests in basketball, such as goal throwing, accurate passing, skillful guarding, knowledge of the rules, but still be a poor team mate in the actual playing of the game. As yet there are not adequate tests devised to measure, objectively, playing ability and cooperative efforts and, until such tests are devised, subjective marking on these points must be used.

Some schools in their great effort to mark objectively do not give consideration to these important elements yet all objectives of a course should be given consideration in the making up of a total mark in the course. It is not reasonable to have as an objective anything the teacher does not expect the pupil to work towards, and anything the pupil is expected to work towards should be given consideration in arriving at an estimate of what the pupil has achieved. Indeed marking should mean the relative amount or degree of objectives of the course which a pupil has attained in pursuing the course. And in physical education activities it is not possible to draw up a good list of objectives for any activity without including some items that cannot be measured by objective means, i.e., items that the teacher must measure by her judgment only. However, Bovard and Cozens say that ways can be found for measuring items of subjective judgment and they should be standardized among teachers as much as possible. Real efforts of teachers to get together on subjective grading lead to worth-while discussions provocative of much enlightenment even if the discussions do not end in a definite tangible plan of subjective grading which all are willing to adopt.⁸

In a discussion of any system of marking there is sure to be a diversity of opinion as to the relative values of the items which are to be considered. Even if all the tests for each item are objective, there is no escape from the subjective determining of relative values but once the items to be considered in arriving at a mark are determined upon and their relative values agreed upon, then the objective tests can be used and the whole system as devised can be explained to the pupils: from that point on, they can know exactly what their mark will be and why, according to their work in the course. Under such a method the mark is not the mark the teacher gives; it is the mark the pupil *earns*.

Changing Methods.—Before 1930, marking in physical education was done by the subjective method almost completely. In 1927 the Alabama Syllabus⁹ carried the following suggestion concerning the determination of marks:

⁸ *Tests and Measurements in Physical Education*, W. B. Saunders Company, Philadelphia, 1930, p. 20.

⁹ Arranged from State of Alabama, *Physical Education: A Tentative Course of Study For The Junior and Senior High School*, State Board of Education, Montgomery, 1927, pp. 20-21.

Attendance	25%
including consideration of cuts, excuses, tardies, costume cuts, etc.	
Sportsmanship	35%
including a long list of attributes	
Hygiene	15%
including consideration of cleanliness of costume, taking of showers, etc.	
Attitude	15%
Initiative and ability	10%
	100%

By 1932 the Alabama standards had changed: they then called for a definite mark based on the pupil's achievement.¹⁰

In the early 1920's a survey was made of the marking system of twenty-six colleges and universities.¹¹ At that time 92.3% of these schools used the five-division system of A, B, C, D, and E and all others gave no marks at all. In determining marks the following considerations were then observed:

- | | | | |
|-------------------------|--------|----------------------------------|--------|
| (1) attendance by | 88.46% | (5) improvement in skill by .. | 57.67% |
| (2) effort by | 84.61% | (6) physical efficiency in | 30.76% |
| (3) skill by | 80.76% | (7) improvement shown in | |
| (4) posture by | 80.76% | physical examination .. | 26.92% |

Of late years there is a definite swing away from the inclusion in marking of such items as physical efficiency, posture, hygiene, improvement shown in physical examination, and attendance. It is not that these items are not of importance but they are expected outcomes and not the main issues upon which the pupil is at work. Posture would naturally be one of the main objectives of a course in posture training but it is not necessarily a main objective of a course in tennis. Good posture should come from good tennis but it is the tennis ability which is to be measured in the course, not the posture. It would be just as relevant to grade tennis classes on other items of body mechanics.

Today performance or achievement in the course is the main factor in marking, which then resolves itself primarily into a consideration of the methods by which a teacher may know what the performance or

¹⁰ National Physical Education Service, *News Letter* No. 50, National Recreation Association, New York, May, 1932.

¹¹ Marian Wood, "Standards for Determining Semester Grades in Physical Education," paper read before Society of Directors of Physical Education for College Women at its annual meeting in 1922.

achievement rank of a given pupil might be at the termination of a given course. But this should not be the whole consideration.

Attendance.—Although some schools still base a percentage of the total mark on attendance records or permit a final mark to be lowered a given number of points by each unexcused absence, there are those who give the mark entirely upon ability in and knowledge of the activity. They assume that failure to attend is penalized through a lowering of the ability level that might have been attained if present. Some argue that certain pupils may be naturally skillful in an activity and so can pass the tests with good marks without being present all of the time. If a pupil loses nothing by absence from a class why should she be present? The answer to that argument is that there is either something decidedly wrong with the class work as organized and presented to the pupils or the pupil is placed in a class below her capacity. Either situation should be corrected. No pupil should be a member of a class which is doing work she can accomplish without almost constant attendance at class. A class period missed should clearly mean to each pupil a chance lost in some direction.

Of course, there is always the disciplinary consideration in regard to attendance which should weigh heavily for educational reasons if the school does have rules requiring attendance. Unexcused absences from classes should not go unnoticed even if a pupil should manage in some way to work at her skills and knowledge and pass the final tests satisfactorily. At the University of Nebraska in the women's physical education department a penalty is given for unexcused absences but that penalty does not affect the mark in the activity. The student receives the same consideration in the computation of her final mark that she would have received had she never been absent unless she is so injudicious as to absent herself when tests are being given, in which case her mark must be withheld until she has taken the tests. The individual teacher bases the pupil's mark on her ability in the fundamentals of the activity, knowledge of the rules, and playing ability, regardless of attendance. She reports to the department office that record. It is the office that checks the girl's attendance. If she has been absent more than a certain number of times she is reported to the registrar as *incomplete* and her mark withheld until she reports for so many make-up periods. When these extra hours of attendance are recorded her mark is released and it is the complete mark she attained in the activity with no discount for attendance record. The extra make-up hours are considered full payment for her absences. In other words she pays in time

for time missed and does not pay in per cent of marks for time missed. The penalty in marks is paid in decreased ability which results from absence—decreased in reference to what it might have been had she been present.

The whole question as to whether pupils should be required to attend classes at college level is an interesting one but it concerns us here only in reference to the effect of attendance records upon marks.¹²

Attitudes.—Since attitudes cannot be measured objectively there is a decided trend towards the elimination of this item of marking. Its patently subjective use predisposes to efforts to keep in countenance with the teacher for the sake of a good mark, thus breeding sycophants. As some pupils pursue this subservient role, others become disgusted at the hypocrisy for pupils see behind such actions the truth that is frequently unseen by the teacher. In efforts to avoid seeming patronage through their desire to be strictly honest in their attitudes others swing to the other extreme, becoming boorish, thus blocking the teacher's ability to judge them by their otherwise honest merits.

There are, however, certain attitudes that are peculiarly related to an activity that is being taught. Such attitudes are inseparably involved in playing skill and would, therefore, receive subjective consideration when that part of the mark is being determined.

Enforcement of Regulations.—Since a physical education class period involves a change of costume with its attendant considerations such as amount of time the pupil may have for dressing and undressing, the kind of costume she puts on and its condition, the disposal of street clothes, jewelry, etc., the taking of showers and the many other regulative principles involved, it is an easy thing to fall back upon the use of marks as motivation for the enforcement of regulations in regard to these matters. But is this justifiable? Should there not be found other ways of enforcing rules so the mark may stand for knowledge and achievement in the activity? Do other departments lower pupils' marks if they perchance come to class in an inappropriate costume or in soiled clothing or because they left their pocketbooks in a forbidden place? It is granted that pupils should learn to follow desirable behavior patterns, also that it is the school's function to teach the child not only how to follow them but how to design them in all cases where the

¹² For an interesting discussion of this subject see Seward C. Staley, *The Curriculum in Sports (Physical Education)*, W. B. Saunders Company, Philadelphia, 1935, p. 257.

home has failed in the task, yet reports of pupils' learnings in specific activities should not be clouded by such considerations.

It might be advisable for a school to have a separate rating for pupils on their conformability to regulations, which would take into consideration compliance to physical education rules in relation to compliance to rules of all other classes and functionings of the school. With such a plan each teacher would report each pupil's rating in reference to her particular class work. These reports would be assembled at a central office and a composite report made for each pupil. With such a scheme, a pupil who is uniformly adverse to following regulations would be discovered and his case could be studied and proper incentives could be administered before he is too deeply rooted in habits of nonconformity. By deducting from marks for failure to comply to rules, the fact of his failure is lost in the mark itself and the truth as to his ability in the course is clouded.

Another advantage of the system of a separate rating on conformity to rules would be that if a large group of pupils rate high in this respect in relation to most of their work and low in relation to the work of some specific department, it would most certainly mean that an investigation is due the rules and regulations of that department or the methods of their enforcement. Such investigations would materially assist educational methods in general. With nonconformity involved in the course mark as now in many schools the facts of the student's ability in the activity are lost sight of: in countless situations even the pupils themselves do not know whether their mark is low because of poor learning in the course or because of failure to observe department regulations. Both the pupil and the administrative officer should know exactly what the teacher's mark means and the mark should mean learning—not learning, minus "this and that" for infraction of rules. There should be two reports for every pupil; one representing her mastering of the subject taught and the other representing her ability to fit into the social scheme of the class as evidenced by her conformance to the rules and regulations which supposedly have been made for the greatest good of the greatest number.

Such a system would cancel all demerits from marking. Some schools have evolved interesting demerit plans and these might well be retained for use in formulating the "social rating" of the pupil in reference to her class work. Some such plans are given later in this discussion.

The Mark Absolute.—The mark which is not restricted by consideration of attendance, attitudes, hygiene, speed of learning, degree of improvement, etc., would represent solely learning, ability, and capacity in the activity. After all is not that what the mark should tell about pupils? If it is desirable to know how they rate in attendance, attitudes, etc. (and these are important outcomes of education) other means of rating these things should be employed so that the "subject-matter" mark may stand for itself. Influenced by these other factors it tells us nothing that is absolute truth. To give Jane Jones, who is excellent—meaning *A* rank—in basketball, a mark of *C* in basketball because she comes to class in a soiled gymnasium suit and is ill-mannered, merely tells the girl herself, her parents, and the school that Jane Jones is fair in basketball and that is not the truth. The teacher's report on Jane Jones should be that she is an *A* student in basketball but that she is also untidy and ill-mannered, which is the truth. This whole truth could then go on the records and people would know exactly in what directions Jane Jones needs help in her educational career. It is not compatible with strict honesty to give marks in any other way. Of course, it might be feasible for educational purposes to withhold marks until a pupil does conform to class regulations using that as a form of motivation but, once the pupil demonstrates her ability to conform, the mark should be released and it should be the absolute mark earned by ability in the class work. Under such a policy the teacher would report Jane Jones as follows: *Mark withheld* or *Incomplete*; and under "Remarks" she would add, "Account of untidyness and bad manners." Later when the teacher is ready to release the mark after Jane Jones has paid the penalty she would report *A* since Jane Jones' actual class work is excellent. Or according to another school policy the teacher might report both the *A* and the rating on the other matters. Then when all reports are in for Jane Jones, her adviser is appraised of her shortcomings in all her classes and she takes her in hand; thus her class marks are unaffected although her "social" standing may be seriously jeopardized by the sum total reports.

Standards for Marks.—For absolute marks teachers should set standards which should be posted for all classes at the beginning of each course. In this way pupils will know, from the very start, what is expected of them and that, by attaining such a standard, they will be marked *A*, 90, or *Excellent* and for another standard, *B*, 80, or *Good*, and for still another standard, *C*, 70, or *Fair*, and so on, according to

whatever marking division the school has adopted. These standards should be divided into three parts: performance or playing ability, techniques, and knowledge. Their relative values are purely an arbitrary matter. At the University of Nebraska the mark is determined by the following plan arbitrarily arrived at by decision of the majority of the staff:

- Performance—50%—determined by teachers' subjective judgment.
- Techniques —25%—determined by objective tests.
- Knowledge —25%—determined by objective tests.

Until all work missed over a certain limit is made up, however, this absolute grade is withheld by a report of *Incomplete*. But no matter how many cuts or excused absences a student may have, once she has made them up her earned grade is released without deductions.

Tests for Standards.—All tests that are given to determine scores within standards should be as objective as possible. There is no reason why technique or demonstration tests and knowledge or written or oral tests cannot all be almost wholly objective nor is there reason why a considerable proportion of performance tests cannot be objective.¹³

Naturally in team games or group activities such as those involving membership on a hockey team or in a dance unit, it is not easy for the teacher to mark the pupil objectively on performance in relation to the group. There is nothing to do but judge, as best one can, by whatever standards seem desirable, the performance of the pupils as they engage in the activity together, being careful to observe all equally.

¹³ Professional literature gives a wealth of samples of excellent objective tests. A wide range of such tests in the field of knowledge for various activities is covered in the articles by Katherine Snell in the issues of the *Research Quarterly* of the A.P.E.A. of October, 1935, March, 1936, and May, 1936. Objective tests in miscellaneous fundamental skills are given in:

Amy R. Howland, *National Physical Achievement Standards for Girls*, National Recreation Association, New York, 1936; Neilson and Cozens, *Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High School*, A. S. Barnes and Company, New York, 1934, and Cozens, Cubberly and Neilson, *Achievement Scales for High School and College Women*, A. S. Barnes and Company, New York, 1937.

Objective tests for various sports may be found in the guide books issued by the Women's Athletic Section covering many sports. A specific example is the article by Ann Avery Smith on "Semester Grading System for Swimming Classes" in No. 125R Spalding's Athletic Library, 1934-1935 issue entitled *Watersports*. There is scarcely an issue of the *Journal of Health and Physical Education* and the *Research Quarterly* of the A.P.E.A. that does not contribute something to this subject in the field of some activity. Practically all manuals of the various state departments of education also contain objective tests in specific sports.

For those activities in which two persons compete against each other, objective measures of individual performance may be procured in a fairly good measure by having the pupils pair off and play matches with each pupil pitted against a number of other individuals in turn and figuring her percentage of wins from the total rounds.¹⁴

Point Systems for Marking.—Many schools have worked out systems for marking by awarding points for each item to be marked with certain accumulations of total points representing certain final marks. Some schools have evolved elaborate systems of points while others, though using points, have reduced their classification to a minimum. Between these two extremes are all degrees of practice. A few samples of systems in use follow.

At Phineas Banning High School in Los Angeles they have worked out a very definite system of points for grading.¹⁵ The points are totaled and posted on the bulletin board about every three weeks. This takes but little time. Emphasis is placed on gaining, not on losing points. All pupils start with 72 points per week; the points earned and those lost are added and subtracted, according to the tables that follow.

The following are some of the ways in which a student may earn points:

	Number of Points
1. A shower	2
2. 30 goals thrown correctly	3
3. 30 volleyball serves from 25 ft. line	3
4. 15 baseballs through target, underhand throw, 30 ft. ...	3
5. Winning squad team in class	One red square
6. Most games won in a sport in class	20
7. Playing on teams after school	6-9
8. Dressing in uniform to practice decathlon after school ..	3
9. Captain who gets full team out	5
10. Complete uniform first day of semester	20
11. Towel card turned in on time	20
12. Not being incomplete in uniform for ten weeks	40
13. Good cooperation (no j, tk, t, dob, l, or unt) for ten weeks	40

¹⁴ See Staley, *op. cit.*, pp. 277-80, for a complete discussion of methods of conducting such examinations. He has worked out an interesting point system for marking, based on number of "wins."

¹⁵ Kathryn D. McCabe, "Point System for Giving Marks in Physical Education," *The Journal of Health and Physical Education*, November, 1931, pp. 11-13. (For a description of a splendid marking system in use in a Pittsburgh high school see Evelyn Spindler, "Do You Grade or Guess?", *Journal of Health and Physical Education*, October, 1931.)

	Number of Points
14. Satisfactory squad leader for ten weeks	26
15. Satisfactory secretary for ten weeks	56
16. Satisfactory towel girl for ten weeks	36
17. Satisfactory time-keeper for ten weeks	21
18. Satisfactory apparatus for ten weeks	22
19. Satisfactory monitor for ten weeks	28
20. Teeth o.k. certified by dentist	25
21. Wearing oxfords to school daily	25
22. Eyes examined and glasses if recommended by M.D.	52
23. Tonsils removed if recommended by M.D.	99
24. Promoted from corrective class	100
25. Marked improvement in skill or sportsmanship	10-30
26. Umpiring or refereeing after school	6
27. Refereeing regularly one night for ten weeks—six points each night also	32
28. Marked improvement in any line	10-30
29. Twenty questions answered correctly in test	10
30. Fifteen questions correct in a test	8
31. A grade of "A" in a posture contest	7
32. Excellent posture maintained in a posture drill	8
33. Participation in dancing on school program	15
34. Creating a dance which could be used in class	10
35. G. A. A. cabinet or committee meetings	6
36. Participation in scheduled games at noon	2-4

Ways in which a girl may fail to get points, the symbols used to indicate this, and the number of points lost for each offense are tabulated below:

Offense	Symbol	Points
1. Soiled, torn, nameless or no middy	m	2
2. Torn, soiled, nameless or no socks	s	2
3. Torn, soiled, nameless or no belt	be	2
4. No bloomers	b	2
5. No shoes or shoe strings	sh	2
6. Not dressed	nd	4
7. Absent from class and excused	—	6
8. Tardy	t	2
9. Loafing, unless excused to rest	l	2
10. Wearing jewelry in class	j	2
11. Talking during roll call	tk	2
12. Poor posture during roll call	p	2
13. Leaving clothes or basket out of place	unt.	2
14. Leaving purse or valuables out of place	dob	15
15. Going into the halls before bell	dob	15

[A sample record for three weeks for four girls is as follows:]

	1st Week					2nd Week					3rd Week				
	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
Brown, M.	-	-	t	m		nd	m	tk	-	t	dob.				
Clark, G.	2	2	2	2	2				2	2	2	2	2	2	2
		6	3	9		3		6		9	6				
Dodge, H.			2		2	2			2	3	2	2		2	
Evans, D.	2	6	6	6		m	6	6	6		2	2	2		
		tk	2	2	2	2	2	2	2		6	9	6		

Brown, M., 72 - 41 = 31
 Clark, G., 72 + 66 = 138
 Dodge, H., 72 + 17 = 89
 Evans, D., 72 + 73 = 145¹⁶

To preclude overdoing by some girls in an effort to accumulate points, grades are determined from the accumulated points as follows:

- | | |
|-------------------|---|
| A for 1200 points | C for 750 points |
| B for 975 points | D for 500 points or less. ¹⁷ |

The following is a list of noticeable results obtained through this system of marking:

1. It approximately doubled the average playground attendance after school.
2. It more than doubled the interest and attendance in noon activities on the playground.
3. Girls, who had never played on any after-school team, began to play on the homeroom teams.
4. It popularized decathlon events and many more girls stayed after school to practice them.
5. It relieved the teacher of a great many disciplinary problems.
6. It reduced delay in starting games. This probably because extra points were given to the match started first.
7. The pupils played with more pep and enthusiasm, probably because winning teams received two additional points.
8. It kept the girls "posture conscious." Points were lost for poor posture in roll call line and added for good posture in a posture test or drill.
9. Many more tonsils, teeth, broken arches, and other physical defects were corrected.

¹⁶ McCabe, *op. cit.*, pp. 11-12.

¹⁷ *Ibid.*, p. 12.

10. It reduced the number of "D" or poor students, because the interest, attitude, and education of the whole group was so much keener that public opinion scorned a "D."
11. It removed hurt feelings and dissatisfaction on report card day because the students knew the mark was objective, not subjective.
12. Ambitious girls with poor neuro-muscular control earned good grades by practicing the decathlon events a great deal and by playing some of the lesser organized games on the noon playground.
13. It insured adequate volunteer service in all lines both for the continuation program and the class.
14. Points given for skill tests served as an incentive to improve skill.
15. It helped the teacher to evaluate her program.
16. It made the teacher's position and relation to the class more democratic.
17. It emphasized self-discipline for the student.¹⁸

Although this system of marking seems to give but little recognition for the acquisition of motor skills (which after all is one of the main objectives of a physical education class hour), it is commendable in that it is so objective that every pupil can know almost to the last point just what she did or did not do to give herself the particular mark she obtained.¹⁹

Another high school using a point system for marking pupils in physical education is East High School of Wichita, which uses the following point chart²⁰ which is less involved than the one given above:

POINT SYSTEM FOR GRADING PHYSICAL EDUCATION

Physical Education will be graded + or — as usual. In order to be graded a +, it will be necessary to earn twelve points. Points may be earned in the following way:

- I. First activity (whatever activity is elected for two days of the week).
A pupil will be given 1, 2 or 3 points, depending on the quality of work done.
- II. Second activity
1, 2, or 3 points will be given as in No. I.

¹⁸ McCabe, *op. cit.*, p. 13.

¹⁹ Miss McCabe writes January 1, 1937, that in the school where she now teaches, Alexander Hamilton High School of Los Angeles, they give but two marks "S" for "satisfactory" and "N" for "not satisfactory" yet she still uses a grade point system, for the girls take pride in being at the top of the list even though it does not show on the report card. She feels well repaid for the extra work it causes in its lessening of discipline problems and motivation of skill and posture improvement.

²⁰ Mimeographed material prepared by Flora Stebbins, Director of Department for Girls, and her staff, and given out to pupils for the school year 1934-1935.

III. Discussion day

1, 2, or 3 points will be given for this work depending on the pupils' contribution to the class discussion.

IV. Showers

3 points will be given if a shower is taken after every activity period except during the menstrual period.

2 points will be given if showers are taken three-fourths of the time.

1 point will be given for less than three-fourths of the time.

V. Specials

2 points will be given if no special excuses are issued to the pupil.

2 points will be given if special excuses are issued because of illness or lack of equipment, providing that they are all made up.

1 point will be given if the pupil has no more than one special excuse which has not been made up.

VI. Clean gym clothes

1 point will be given if a pupil has a clean gym suit every two weeks.

VII. Attendance

Since one objective of physical education is for a pupil to form the habit of an hour of exercise daily,

3 points will be given for a perfect attendance record.

2 points will be given if a pupil does not have more than three absences.

1 point will be given if a pupil does not have more than five absences.

It is possible to make a total of eighteen points. A grade of + will be given for any combination of points totaling twelve.

Sweetwater Union High School of National City, California,²¹ has an interesting point system for marking which is so objective that the pupils are able to total their own points at the close of each day. This they are required to do. Two members of the commercial department keep the records which the pupils themselves turn in at the end of each class hour, through a box kept in the dressing room for this purpose. Each girl keeps a duplicate record of her daily points so that she knows at all times what her grade is and may check her own record with that in the office at any time. As a counter check, team captains post daily their scores and list of members. One outstanding rule in this system is that no girl may give herself points for any physical

²¹ Mary Roberts, "A Simple Point System for Grading in Physical Education," *Journal of Health and Physical Education*, November, 1933, pp. 51-52.

education work she has done unless she has reported in full regulation uniform. The possible 50 points a day a girl might earn are completely wiped out if she is not in full costume. Other point systems give added points for correct costume or a few deducted points for failure to wear proper costume but a local situation may justify this drastic rule.²²

Under such a definite system, the pupils can study out modes of action which they might advantageously pursue to improve their standing. They can see for themselves their weak and their strong points within the limits of the system.

Semester Averages.—Naturally when a course is made up of segments of activities each segment must receive its final mark and these must be averaged or weighted for the semester rating. For example, a full semester course of five hours per week may consist of (1) 2 hours a week for 9 weeks of soccer, (2) 2 hours a week for 18 weeks of swimming, (3) 1 hour a week for 18 weeks of hygiene, and (4) 2 hours a week for 9 weeks of folk dancing. The grade for each segment of this semester total should be derived by the three point plan or some similar plan of determining ability in each activity and the final mark would be reached as follows:

Soccer performance.....	10%	Hygiene practice.....	10%
technique	5%	knowledge	10%
knowledge	5%	Folk dancing performance..	10%
Swimming performance....	20%	technique	5%
technique	10%	knowledge	5%
knowledge	10%		
		Total	100%

A final mark arrived at as an average of marks earned in a number of activities, as is usually the case in physical education marks because of the seasonal programs within a semester, tells practically nothing. If a student is excellent in soccer, good in hygiene, and poor in folk dancing, all of which she has been taking in one semester, her final mark is somewhere in the range of "good" values which the student, parents, and school office will no doubt interpret to mean that the student is "good" in soccer, hygiene and folk dancing which is not the case at all. The student herself, sensing that she is excellent in soccer, resents in a measure the fact that her excellence is apparently not recorded. It is human nature for her to forget her poor work in folk dancing but if she does recall it she is a bit elated that the report camouflages it: her parents and the school office are none the wiser.

²² Roberts, *loc. cit.*

It would be a more educational procedure to report a semester's mark in its logical segments. Such a procedure would add heavily to office work but the question arises: Are the schools maintained to keep clerical work at a minimum or to assist the child in its effort to develop its personality to the best advantage?

Interpretations of Marks.—It is not uncommon to find, within one school, teachers who define an A as anything from 95–100, 92–100, 90–100, and 88–100 and so on for B, C and D. For this reason numerical grades are more standardized although even a numerical grade does not necessarily mean the same to two teachers since it is quite possible for one to consider any mark within the 90's as excellent while another considers only those marks from 95 to 100 as excellent. They do not necessarily agree on standards for "excellent." It is all relative and units of measurement vary between teachers.

It has been the author's experience in discussing values of marks with various staff members that a group of teachers comes nearer "speaking the same language" when the adjectives "excellent," "good," "fair," "poor," "unsatisfactory" and "unacceptable" are used as a standard of measure than when any other rating scheme is used. Four teachers may agree unanimously that a student does "good" work but when the four interpret "good" in terms of percentage from 1 to 100 or in terms of A to F, it is quite probable that there will be a disagreement in their reports because numbers and letters mean nothing in themselves and are assigned arbitrary values.

As long as final marks are given objectively by averaging a group of marks, each determined by objective tests rated by a standard objective measure, the final will be a standardized report intelligible to all, but as soon as any part of the total mark is arrived at by subjective methods, by that much is the meaning of the final mark subject to guesswork on the part of all others than the teacher who attempts to interpret its exact meaning. Moreover, as soon as any mark, even a completely objective mark, is translated from percentage numbers to letters, it is that much farther removed from understanding unless the school defines in very definite and detailed terms just exactly what each letter should mean and states its exact equivalent in percentage numbers and requires all teachers in its employ to use that standard. Pupils, parents, and teachers understand what "excellent," "good," and such adjectives mean: it is strange that schools do not report marks in terms that are in common usage by all groups. For purposes of averaging they would have to be translated into numbers and for that purpose

evaluated in the school office but the final mark could be translated back to adjectives again.

Bookwalter of Indiana University presents a standardized method of determining term averages, employing the five-letter division plan, and covering standards for evaluating attendance, performances in stunts, tests, objective tests of knowledge, compliance with rules, hygiene of class work, posture and citizenship, with all values translated in terms of A, B, C, D, and E.²³

Itemized Reports Versus a Composite Mark.—No matter how the semester average is determined (by objective tests, subjective judgment, simple or elaborate point systems, on ability only, or on attitudes, attendance, and knowledge as well as ability) or by what division plan the final mark is reported, it still does not tell the pupil, parents and school office anything in particular. An effort to surmount this difficulty is reported by the Director of Physical Education of the Hatch and Whittier Schools of Oak Park, Illinois.²⁴ A two year experiment with a new style of report card for the seventh and eighth grades has resulted in a type of report that is submitted to the school office and parents three times a year, at the close of each season (fall, winter and spring), as follows:

PHYSICAL EDUCATION REPORT FOR FALL ACTIVITIES
1935

Name *John Miller*

Absent from Class *0*

Care of Gym Shoes and Suit *Good—forgotten once.*

Intramural Games After School *Actively interested—Captain of team.*
(Open to all boys)

Sportsmanship *Good at all times.*

INDIVIDUAL TESTS OF GAME FUNDAMENTALS

1. Football throw for distance, *75 ft.* Class average, 74 ft. Overhand throw with short run allowed. Each boy was allowed four throws, and the best of the four counted.
2. Football throw for accuracy, *8 out of 10.* Class average, 4. Each boy given ten throws at automobile tire eighteen inches in diameter, hung twenty feet away from throwing line.

²³ Karl Webber Bookwalter, "Marking in Physical Education," *Journal of Health and Physical Education*, January, 1936, pp. 16-19, 61-62.

²⁴ Paul M. Mitchell, "Physical Education Reports," *Journal of Health and Physical Education*, September, 1936, p. 448.

3. Football punt for distance, 67 ft. Class average, 75 ft. Each boy was allowed four punts, the best of which was counted. Distance was measured from kicking line to spot where ball first touched the ground.
4. Run and dodge with ball, 11.9 seconds. Class average, 12.5 seconds. A test for speed, involving a distance of 100 feet, 50 feet down, and 50 back to starting line. Boys were required to run with ball held in proper position, dodging through and around four chairs placed one yard apart.
5. Knowledge of rules, 97 (100 perfect). Class average, 88. True-false, multiple choice, and completion were types of tests used in written examination on rules.

It is my hope that this type of report will give you a better understanding of some of the activities in which your boy has engaged. I shall appreciate your comments.

Sincerely,

.....

Physical Director

The comments from parents concerning this type of report were gratifying. Three of the many quoted were as follows:

"I appreciate this intelligent and very informative kind of report."

"A very fine method of letting the parents into the 'secrets' of your work. I appreciate it, and hope others do. Thank you."

"This type of report is wonderful, and it is a pleasure to know that each boy is getting as much individual attention as is indicated here."²⁵

It is easy to conclude with Mr. Mitchell that this is a step in the right direction. It cannot fail to create a spirit of greater cooperation between the home and the school and particularly between the home and the department.

Marking at College Level.—For college age elaborate point systems are not in use. The minimum in division plans (*passed, not passed*) is found at this level, in use at Connecticut College, Syracuse University, and Illinois State Normal University.²⁶ These three schools represent, however, a very small minority of the colleges of the country, with the great majority subdividing the group that passes by some division plan of marks.

²⁵ Mitchell, *loc. cit.*

²⁶ Violet Marshal, "The Status of Physical Education for Women in Colleges and Universities," *Research Quarterly* of A.P.E.A., October, 1936, p. 12.

CREDITS

High School Credit.—The past twelve years have brought a marked change in the point of view in regard to the granting of credit for work in physical education. A questionnaire of 1924 showed 480 out of 582 principals, superintendents, and district superintendents of the State of New York to be in favor of credit for required physical education in the secondary schools yet there were 102 or 17+ per cent against it. Among the reasons given by this 17 per cent for their opposition were the following:

1. It would kill the spirit of physical education work to give credit for it.
2. It would lower standards.
3. It would decrease the importance of physical education.
4. It would make physical education dull and stupid.
5. "I am opposed to giving credit for digging potatoes, etc., in lieu of Latin."
6. "Pupils ought not to have credit for doing what they like . . ."
7. "Schools are for training the young to read and write." "They ought to be rewarded for this, but there is no need of rewarding them if they play well."
8. "It would be as much out of the general scheme as giving credit for eating well-balanced dinners."²⁷

Such arguments are rare today. In 1929 credit for physical education was being granted throughout seventeen states and from a survey of 254 school systems it was found that 183 schools (72 per cent) were granting credit for required physical education.²⁸

In 1930, fifteen State Directors of Physical Education unanimously agreed that physical education credit should not only count for promotion and graduation but that it should be required. The situation of that date found the state practice not to be completely in accord with their theory for only 53 per cent of these states counted credit in physical education towards promotion, and only 60 per cent required credit in physical education towards graduation.²⁹ As early as 1930 the California State Board of Education was requiring for the four grades

²⁷ Charles L. Mosher, "Results of Questionnaire Regarding Regents Credit for Required Physical Education," *American Physical Education Review*, September, 1925, p. 411. (Arrangement.)

²⁸ E. V. Graves, "Tentative Study of Credit for Physical Education in Secondary Schools," *News Letter* No. 19, National Recreation Association, New York, April 1, 1929, p. 1.

²⁹ Editor, "Credit for Physical Education," *News Letter* No. 28, National Recreation Association, New York, March 1, 1930, p. 5.

of the high school ten credit hours in physical education out of the 160 required for graduation. To earn this a student had to take physical education at least five forty-minute periods or four fifty- or sixty-minute periods per week each of the eight semesters.³⁰ At this same time the North Central Association of Colleges and Secondary Schools stipulated that for one unit of credit in physical education, the pupil must take the subject as regular class room work for five days a week for two years, or for three days a week for three years and for a half unit of credit, twice a week for three years or three times a week for two years.³¹

In 1931 it was reported that eight state departments of public instruction had set up such programs that they were ready to grant credit of one unit to all high school pupils completing the four-year course in physical education and further they were asking colleges and universities to recognize this one unit from accredited schools within the 15 or 16 units required for college entrance.³² In 1932 the Committee on High School Administrative Standards recommended the following:

- 2 units of credit for 4 years work if the total time given to physical education each week of each year equals 200 minutes or more, with 300 minutes made up of 5, 60-minute periods as the goal to be desired.
- 1 unit of credit for 4 years work if the total time given to physical education each week of each year ranges from 100 to 200 minutes.³³

The Texas standards published in July, 1934, carried a statement that all schools desiring recognition of credit for high school physical education must offer satisfactory work in the grades leading to the high school program. They define satisfactory work in the grades as follows:

1. A minimum of 150 minutes a week given in daily periods.
2. An indoor playroom required after 1935.
3. A health examination by a medical doctor at least every two years.
4. A daily health education class of at least 15 minutes.
5. Adequate play space and equipment of 400 square feet per child— at least 4 acres for an enrollment of 500 in a school.³⁴

³⁰ National Physical Education Service, *News Letter* No. 27, National Recreation Association, New York, February, 1930, p. 2.

³¹ National Physical Education Service, *News Letter* No. 31, National Recreation Association, New York, June 1, 1930.

³² J. H. Nichols, "The Granting of College Entrance Credit in Physical Education," *Research Quarterly* of A.P.E.A., March, 1931, p. 29.

³³ J. B. Nash, Report of Committee, *Research Quarterly* of A.P.E.A., May, 1932, pp. 126-29.

³⁴ Texas Public Schools, *Standards and Activities of the Division of Supervision* 1933-34, Vol. X, No. 7, Austin, Texas, July, 1934, pp. 81-82. (Arrangement.)

Accreditation for College Entrance.—Nichols³⁵ of Oberlin reported in 1931 "a strong and decided trend . . . to accept college entrance credit in physical education from those high schools whose standards have been approved by the state departments of education and which have been placed on the state accredited list as giving satisfactory programs in physical education." He cited 22 different colleges and universities, representing 15 different states, as so accepting college entrance credit in physical education.

In that same year Brownell of Columbia recommended that each state prepare standards for college accrediting of physical education and that these standards should cover the following items:

- a. Teacher preparation and certification.
- b. Teacher load or pupil teacher ratio.
- c. Time specification and distribution thereof among the various divisions of the program (health education, physical education).
- d. Equipment—indoor and outdoor.
- e. Facilities—indoor and outdoor.
- f. Type of program to be offered.
- g. Basis for awarding credit for graduation from secondary school.
- h. Amount of credit to be allowed for graduation from secondary school.
- i. Amount of credit which may be allowed for college entrance upon an *elective* basis.³⁶

In July, 1933, the University of Illinois in conjunction with the State Superintendent of Public Instruction issued a bulletin in which was stipulated the following as regards the accrediting of physical education from Illinois Secondary Schools for college entrance:

- (a) The course must be well organized and graded and must be designed to meet the needs of the pupils enrolled.

Curriculum Outline.—The department of physical education must formulate and follow a curriculum outline designed for its own use.

Curriculum.—The curriculum must cover a minimum of twelve activities selected from the list which follows, or other similar. A minimum of six clock hours should be spent on each activity.

³⁵ *Op. cit.*, pp. 28-29.

³⁶ Clifford Lee Brownell, "Upon What Basis Should Colleges Be Asked To Give Entrance Credit for Secondary School Programs of Physical Education," *Research Quarterly* of A.P.E.A., March, 1931, p. 14.

List of Activities for Girls

Folk dancing	Volleyball	Ping Pong
Tap dancing	Field hockey	Unorganized athletic events
Clog dancing	Girls' baseball	Unorganized relays
Natural dancing	Softball	Fencing
Social dancing	Speedball	Swimming
Individual tumbling stunts	Handball	Water stunts
Double tumbling stunts	Tennis	Diving
Pyramids	Golf	Life Saving
Group games	Archery	Skating
Semi-organized games	Horseshoes	Figure skating
Soccer	Tennikoit	

Students in all classes should be dressed in appropriate costumes.

Students should be expected to take a shower after each class.

(b) The classes in this subject must meet at least twice each week during class periods not less than forty minutes in length.

The curriculum must extend over a period of six semesters in a three-year senior high school and over a period of eight semesters in a four-year high school.

(c) Credit will be estimated on the basis of a total time allotment of 240 sixty-minute hours for one unit of credit.

(d) The school must be so equipped as to meet the needs of instruction in this subject.

(e) The minimum requirements of a teacher relative to preparation shall be a college degree, and at least sixteen semester hours of college preparation in physical education.

(f) The maximum amount of credit which may be allowed is one unit.

In order to receive credit for a course in physical education, the student must have been enrolled in a regularly scheduled class and should not be permitted to substitute "varsity squad" work for the work as outlined above in the physical education class.

Credit must be based on achievement in learning the materials covered in the course of study.

Note—Athletics—Credit is not allowed for participation in athletics.³⁷

In 1934 a report was given to the effect that eighty-one institutions of higher learning had been studied as regards acceptance of Health and Physical Education for college entrance credit. Of these, fifty-four (66 $\frac{2}{3}$ per cent) accept either physical education or health education, or both credits, as college entrance; 41 per cent accept both; 25 per cent accept health education alone and not physical education; and the University of South Carolina accepts physical education credit alone, but not health education.³⁸

Time Versus Achievement Requirement for the Granting of Credit.—In the past, time element was the universal basis for accreditation: in some situations it was the sole basis. Gradually an

³⁷ "It May Interest You to Know," *Journal of Health and Physical Education*, November, 1933, pp. 48-49.

³⁸ National Physical Education Service, *News Letter* No. 69, National Recreation Association, New York, April, 1934.

achievement requirement was added to the time requirement until now it is not possible in a department of high standing for a pupil to be passed and to receive credit just because she has attended class a certain set limit of time regardless of the quality of her work: she must meet a certain minimum achievement standard in addition to the minimum time standard to receive credit. While a few schools are excusing pupils from the requirement in physical education solely on an achievement basis in which case no credit is conferred (there is merely a release from need to procure it) the author knows but one secondary school where they have swung to the extreme opposite from the time element as a requirement for credit and grant credit for achievement only. In 1929 the girls' department of Northwestern High School, Detroit, granted the ten points required in physical education toward graduation whenever a girl showed evidence of ability to meet the department achievement requirements. Although it was possible for a girl who was gifted in physical education activities to meet the requirement and gain the credits without actually taking class work the ten points were usually not earned until the end of the fourth year.³⁹ This was purely an experiment of that period but an interesting trend.

College Credit.—The great majority of colleges and universities grant credit for work in physical education, the most common standard being one credit hour for three hours per week per semester with four credits required for graduation. Beyond this requirement, credit is usually accepted for a limited amount of elective work, the usual allowance being a maximum of four credit hours. As far back as 1902, Rockford College granted credit for physical education work on the same basis as for all academic work. This is the earliest record of the granting of credit by any woman's college.⁴⁰ Recent years show an increase in the number of schools giving academic credit in physical education: especially is this true in the South.⁴¹

³⁹ Esther Sherman, *Health Education: A Program For Girls in Secondary Schools*, Detroit, Board of Education, 1929.

⁴⁰ Dorothy Ainsworth, *The History of Physical Education In Colleges For Women*, Copyright, 1930, A. S. Barnes and Company, Publishers, New York, p. 73.

⁴¹ Marshall, *op. cit.*, p. 6.

CHAPTER XVI

COMPETITION

"The important thing is not winning but taking part.
The essential thing is not conquering but fighting well." ¹

—BARON DE COUBERTIN

OUR MODERN WORDS "games" and "sports" come from the Gothic word *gamman* meaning "with companionship" and the old French word *desporter* meaning originally "to carry away from work." This would indicate that in early times games and sports were recognized for their spiritual values as indeed they are still recognized today by the true amateur. In the craze for victories and championships their essential value to the spirit is frequently lost to the professional and the pseudo-amateur.

The Amateur Spirit.—The true amateur spirit is a stranger to those leaders and participants in so-called "amateur" sports who are driven by an anxious public fearful of defeat. John Tunis defines a sportsman as one who "knows the thrill of real sport, of playing, not for championships, for titles, for cash, for publicity, for medals, for applause, but simply for the love of playing." ² Games played by genuine sportsmen do not require high powered and numerous officials and guards to protect the players' interests. Sportsmen worthy of the name protect their opponents' interests by their own honor. Amateurs worthy of the name are as concerned for their opponents' welfare as for their own. This is the type of competitive spirit which true educators would foster in the schools. It is a sad commentary on modern education that such spirit is almost unknown in our public life. Where known it is frequently ridiculed.

The Educative Competitive Spirit.—Youth must be given a chance to lead itself through the intricacies of the rules of the game if it is to reach a seasoned maturity through these experiences. In its own leadership it must be allowed to recognize sports and athletics merely

¹ The Olympic Motto.

² *Sports, Heroics and Hysterics*, The John Day Company, New York, 1928, p. 17.

as games if they are to be assigned correct life values. Then will the true competitive spirit, worthy of real sportsmen, assert itself—a spirit to accept victory merely as a by-product (a test of ability), never as an end in itself. The real aim of an athletic contest should be not to win but to play one's best according to the rules, calling forth the best efforts of opponents and letting victory fall where it will according to the merits of the players. With this spirit there is zest in challenging opponents to play the better game if they can; zest in rallying teammates to cooperate in the challenge, pleasure in matching skill against skill, thrill in observing superior play of opponents with a hope to match it later, pride in showing superior skill willing for opponents to better it, if they are able, and above all spiritual refreshment in companionship with opponents, as well as with teammates. With such spirit what matters who wins? As long as the playing of the game has augmented health, not endangered it, has strengthened old and built up new friendships instead of destroying them, has refreshed and restored the spirits of the players instead of harassing them, the competition engaged in has been educative.

This is the form of competitive spirit women educators desire in the education of girls and women. Those critics who claim that women physical educators do not approve of competition little know what they say. It is true they do not approve of competition built upon the modern intercollegiate pattern of men's sports, with its publicity, its ballyhoo, its insane and inane worship of star performers, its attention to the skilled and neglect of the unskilled, and its sporting followers who demand victory at all costs. But they do believe in the competitive spirit of the true sportsman and they desire for all girls and women an opportunity to experience, in their educational process, the kind of competitive athletics which foster that kind of spirit. They want that kind of competition so much for *all* girls and women that they reject any program that will reserve this education for the few who readily show skill. Instead of too much competition for a favored few they ask for a moderate amount for all. They merely advocate a democracy rather than an aristocracy of sports. And in these demands women educators do not stand alone. Ever increasing numbers of men support them in their contentions: not only educators but professional and business men as well. Not only do they support them in their insistence upon observing in sports for women the truly amateur spirit but they are emboldened to demand the same for boys and men. In an address

before the Department of Superintendence in St. Louis in 1936 Carl Schrader, then State Director of Physical Education from Massachusetts, said:

If we could be but certain that the administrators in education, that is, the superintendent and principals of schools, recognize physical education, of which athletics is a part, as a means of achieving certain educational ends rather than look upon the outcome of a game or competition as the end, we might boast of the greatest youth movement the world has known.³

Sportsmanship.—The very foundations of the world of sports are laid in the concept "sportsmanship." He who has in his heart this true concept is never lacking rules for guidance from within his own spirit but he who has it not must be ever bound by rules and regulations imposed by authorities to render his presence on the playing field acceptable to others. Professor Kennedy of Princeton said:

It will always be difficult to frame a definition of sportsmanship that will be completely accurate and comprehensive, for sportsmanship is so subtly rooted in the reactions of human spirit, so various in its possible gestures, and so intricately interwoven with the elements of individual character and personality that it is by its very nature not susceptible of being caught and held in any net of words. Nevertheless, there are elements of sportsmanship so clear that he who runs may read. A sportsman is one who loves the game for its own sake; who has a scrupulous regard for the rules of fair play and strives under these rules to pit his best against the best of an opponent whom he respects; who admires excellence in the game for its own sake and who pays an instinctive tribute of respect to excellence whether it be his own or that of an opponent; who in the stress of competition strives to the uttermost without descent to breach of rule or vindictive spirit; who hates a quitter, an alibi, or a boast; who in the course of the game preserves courage in the face of odds, and dignity, self-respect and good will in the presence of defeat; who wishes an amateur game to be played by amateurs and not by masquerading professionals; who delights to meet all comers upon the democratic fields of sport with a recognition that it is well for youth to have this early training in the knowledge that in the life of a great democracy he is the better man who proves it. These, though by no means all, are some of the important elements in that fine and subtle attitude of mind called sportsmanship.⁴

³ Carl L. Schrader, "Physical Education Becomes A Fundamental," *Journal of Health and Physical Education*, April, 1936, p. 216.

⁴ Charles W. Kennedy, "Self-Control and Chivalry Through Sport," *Sportsmanship*, June, 1929, p. 5.

TRENDS IN THE FIELD OF INTERSCHOLASTIC ATHLETICS IN GENERAL

Since athletics for boys and men are widely publicized, changes in trends are readily discerned by both laymen and educators and are quickly absorbed into general educational procedure. All changes indirectly affect the women's field so that a brief discussion of trends in boys' and men's athletics is in order here.

There is a growing tendency, all over the country, to minimize the former importance of competitive athletics, to raise the age level, not only for participation in interscholastic sports, but even for intramural participation in those sports used for interscholastic programs, to minimize the importance of coaches as such, to minimize the importance of star performers, to curtail the number of contests to be played in a season, to eliminate national and interstate championships, to curtail state championships, to unite athletics and physical education, to intensify the program of intramurals, to accept the spirit of cooperation, and to recognize the necessity of the coaches' greatest contribution as being in the field of health and education rather than in the field of winning teams.

The Situation as It Affects Athletics for Girls.—Trends in men's athletics bear a direct relation to women's athletics. With interscholastic sports for school boys slowly, yet surely, receding into the educational background as the twentieth century glides towards its fifth decade, it becomes increasingly certain that sports for school girls will never be permitted, by these same educators, to enter the interscholastic arena.

As attention, formerly focused on intense competition for boys, is now being turned inward upon intramural programs the needs of girls are being observed as never before. Their intramural programs which have been struggling along for years begging for their rightful share of attention are in many institutions today receiving equal consideration with that of the boys' programs. If the skilled few may never attain their dream of a place in an interscholastic sun, the great mass of girls of today are, however, on their way to a rich heritage of sports and athletics such as girls of two decades ago never dreamed of attaining. The opportunities of the masses to acquire skills in a great variety of sports and to enjoy the pleasures of athletic competition in wholesome, undriven play such as is offered to girls in physical education classes, intramural programs, and play days of the present is an ever widening

circle reaching out from the larger city centers to the smaller schools just as fast as school systems can avail themselves of leaders of girls' sports. Today this leadership is less frequently assigned, as a side issue, to the boys' coach or to some untrained and usually unwilling woman teacher. School administrators are recognizing the educational values of competitive sports for girls and are realizing that the values are derived only through skilled leadership.

Interscholastic Athletics for Girls.—While a program of interscholastic athletics for girls has never gained a real foothold in educational circles, that which has existed is disappearing as intramurals increase in popularity. Just what the situation has been in the collegiate world for the past fourteen years is a matter of record from two surveys made by the author, one in 1923 and the other in 1931.⁵ Records of the situation in high schools are scattered throughout miscellaneous reports.⁶ The most thorough study is that made in the summer of 1933 by W. J. Foster of Newport, Kentucky, for the National Federation of State High School Athletic Associations, which revealed that at that date 32 state organizations permitted limited interscholastic athletic competition in a few sports by its girls, 12 state organizations permitted absolutely no interscholastic basketball by girls and 18 did not rule against it but only 6 of these 18 were having tournaments for the girls (Georgia, Idaho, Maryland, Missouri, Tennessee and Vermont). Nineteen states did permit interschool competition for girls in tennis, golf, and archery.⁷

Basketball is the sport used most frequently in girls' interscholastic competition and, since it is the sport in which there are the most flagrant violations of educational principles, it bears the brunt of objections, the most important of which are as follows:

1. It produces both physical and emotional strain which is harmful to the girl.

⁵ "The Case For and Against Inter-collegiate Athletics for Women and the Situation as It Stands Today," *Mind and Body*, November, 1923, pp. 245-56, and *American Physical Education Review*, January, 1924, pp. 13-19, and "The Case For and Against Inter-collegiate Athletics for Women and the Situation Since 1923," *Research Quarterly* of A.P.E.A., May, 1931, pp. 93-127.

⁶ State meetings of athletic organizations and school men, *News Letters* of the Women's Division of the National Amateur Athletic Federation, *News Letters* of the National Recreation Association and information gathered as a side issue by the author in 1930 in connection with a survey of costumes in use for athletics.

⁷ "Rules Governing Interscholastic Sport As Applied By the Various State High School Athletic Associations," *Illinois Athlete*, October, 1933. (In 1937 there was a State Basketball Tournament for Girls in Iowa which, as is usually the case, was not entered by the better schools.)

2. The temptation to participate during the menstrual period is a serious hazard to future health.
3. It is more frequently accompanied by rowdiness than by cultural influences which hinder the best personality development of all who are involved.
4. It leads to neglect of studies on the part of the players and to neglect of other important extracurricular activities and teaching on the part of the coach and sponsors.
5. It brings undesirable publicity to girls.
6. It leads to a distorted conception of the values of athletics.
7. Whatever values might exist in such procedure can be gained only at too great a sacrifice of other values.
8. A long program of intense competition seriously curtails the girls' freedom to pursue a normal life and brings many unwholesome experiences as happens to boys and men who are varsity players involved in commercialized athletics.
9. Such a program breeds the "coach" type of instructor as opposed to the "educator" type and the "professional" type of player as opposed to the "amateur" type.

Opinions of women educators concerning intercollegiate athletics hold for interscholastic activities as well. The following expresses the opinion of many leading college directors from all parts of the country:

It is interesting to note the rising tide of condemnation of men's intercollegiate athletics. It has grown from a mild protest, voiced by a few in the study of 1923, to most emphatic statements of disapproval, voiced by a large number in this present study of 1930. There exists a great fear that once intercollegiate athletics for women gain a foothold, college women might become involved in the same athletic predicament of their brothers. The director who replies in the following strain seems to voice the opinion of the great majority when she says: "I would approve of a program of intercollegiate athletics for women if it would actually be conducted as amateur sports should be conducted but not as men's intercollegiate athletics are conducted in this country." There is ever present the alarming thought that women might become involved in something equally undesirable. Directors for women seem to feel that these fears are not altogether idle fancies, judging from the pressure being brought to bear in yearly growing force from certain sources.⁸

GIRLS IN ATHLETICS

Differences Between Boys and Girls.—The anatomical and physiological differences between boys and girls that are commonly recognized are but a small part of the actual total differences between

⁸ Lee, *op. cit.*, pp. 124-27.

them. Deep seated in the very depths of their inner natures are differences of such character that educators should deal with girls as separate entities and not as slightly modified patterns of the boy type.

Difference in Thyroid Functioning.—Dr. E. H. Arnold, former President of Arnold School of Physical Education, who studied the reaction of women to athletics over a period of many years, found unfavorable effects upon the thyroid gland in cases of participation in such form of athletics as originated for men.⁹ Dr. A. M. Kerr of the Pittsburgh Public Schools says that high school girls show a slightly larger amount of heart trouble than do boys due to temporary hyperthyroidism.¹⁰

Pelvic Considerations.—In his study Dr. Arnold found, under the same conditions, pelvic changes causing a modification of menstrual flow which he felt would involve a diminution of productivity if girls were subjected to an athletic program similar to that of boys.¹¹

Sir Arthur H. Rostron, retired Commodore of the Cunard Fleet, in the story of his life at sea, which culminated in his command of the *Mauritania* and *Berengaria*, tells of the world of sportsmen as he saw them as they travelled across the sea. Of women in sports he says:

By the way, what a veritable outbreak of women there has been in sport since the war! They always seem to be crossing the Atlantic, golf girls, rowing girls, swimming girls, tennis girls, even flying girls. All very charming, usually romping, healthy creatures, full of life. But I often think the thing is vastly overdone. Is it good for the race that these girls—many of them still in their teens—should be asking such tremendous effort of their physiques? I doubt it; I am old-fashioned enough to prefer the girlish girl, not the falsely demure miss of the Victorian era, but the sane daughter of this century who looks upon sport as pleasant exercise and recreation and not the be-all and end-all of her existence. These are perhaps the future mothers of boys, and likely those boys will be the better if their mothers have not lived the hectic, overstraining life these sportswomen do today.¹²

Dr. J. Anna Norris of the University of Minnesota maintains that physical activities which make heavy demands upon organic vitality are not suitable for the rank and file of girls and that the dangers

⁹ E. H. Arnold, "Athletics for Women," *Mind and Body*, January, 1934, pp. 114-22.

¹⁰ "Safeguarding the Heart in High School," *Journal of Health and Physical Education*, January, 1931, p. 16.

¹¹ Arnold, *op. cit.*

¹² Sir Arthur H. Rostron, *Home From the Sea*, The Macmillan Company, New York, 1931, p. 167.

from collision, violent contact, and falling are more serious for the girl than for the boy. She warns of pelvic disturbances, brought on by unwise athletic participation, from which the girl may never recover.¹³

Emotional Values.—Girls may not need to give expression to "fighting instincts" as do boys but they do need to learn to cooperate with and to compete against others and, in doing both, to control their emotions. Athletics properly supervised furnish excellent laboratory practice for these things.

A staff member of the Carnegie Foundation for the Advancement of Teaching speaks of the value of athletics to girls as follows:

. . . I have never seen, and I doubt if any one of you have ever seen, a household establishment run by a man that approached in material and esthetic comfort and in abiding happiness a household guided by a woman. Now, one large factor in keeping a successful household is evenness of temper, emotional control, on the part of the person who presides over it. The ability to hold an even temper and to control the emotions is not an inherited characteristic; it is acquired, and acquired only through the mastery of crises. If we look about for a place where the girl or the young woman can most pleasantly acquire emotional control through the mastery of crises, we need search no farther than the playing field. This notion is so familiar to all of you that elaboration would be superfluous. Yet I cannot but remind you that if the lesson of self-control be thoroughly acquired through the games and sports of youth, it is possible, although not yet demonstrable, that the emotional "carry-over" into the affairs of later life amply justifies the encouragement of sport to this as well as to other ends. That "carry-over" will not be perfect. In many specific cases it may be so slight as to leave us doubtful of its existence. And yet when all is said and done, we may confidently hope that it will persist in numbers of lives as a safeguard in emergency.¹⁴

Speaking of girls and basketball, Blanche Trilling of the University of Wisconsin says:

Whether their emotional instability is temporary and will disappear when men and women are treated alike, or whether it is fundamental, all agree that at present it does exist. Girls are habitually more excitable, more sensitive to opinion and more likely to give expression to emotional upsets than boys are. The adolescent girl in particular is difficult. In some respects, like the boy, she is . . . "herd-minded" and in others she is individualistic, while the boy tends

¹³ "Basketball-Girls' Rules," *Child Health Magazine*, American Child Health Association, New York, December, 1924.

¹⁴ Howard J. Savage, "Athletics for Women from a National Point of View," *Journal of Health and Physical Education*, June, 1930, p. 13.

to go with the crowd. She is overjoyed when praised and correspondingly cast down when blamed. She is likely to take the decisions of a coach or an official in the game as personal. Either she takes the game with deadly seriousness—a fault hard to remedy when she knows that she is on exhibition and that on her playing depends the reputation of her school—or she treats it with regrettable flippancy and is likely to refuse to play when much is at stake unless the game affords her a chance to pose as an athletic type, a bathing beauty or even as a clown.¹⁵

Safeguarding Girls in Athletics.—To safeguard girls in athletics their competition must be free of emotionalism, free of intense competition, free of heart and pelvic strain, and free of all attempts to imitate the boys. This advice holds for the elementary school age (the fatigue years) as well as for the secondary school and college ages. It means keeping girls out of spectator athletics, out of the boy's realm of sports. They should have a sports realm of their own, one founded on physical safeguards and moderation.¹⁶

The athletic activities themselves must be safeguarded against commercialization. They must not be used for the exploitation of any persons, groups, organizations, or institutions. Beyond that the individual participants themselves must be safeguarded physically through medical examinations before playing and by careful supervision during activity, and safeguarded socially by protection from personal exploitation.

Girls are exploited by Chambers of Commerce and men's professional clubs as advertisement for the home town; by sporting goods houses, industrial companies, stores, and business firms for their own advertisement in "backing the team"; by churches for the doubtful benefits, when captured thus, of attracting young people to their church; and by commercial sporting interests for their own mercenary ends. Whenever girls' athletics are promoted for any reasons other than the physical and educational benefits and recreational pleasures to be derived by the participants themselves it is a safe guess that the players are being exploited.

Medical Examination for Sports.—The medical examination should be given by a physician recognized by the local medical associa-

¹⁵ Blanche M. Trilling, "The Playtime of a Million Girls or an Olympic Victory—Which?", *The Nation's Schools*, August, 1929.

¹⁶ Mabel Lee, "A Consideration of The Fundamental Differences Between Boys and Girls as They Effect the Girls Program of Physical Education," *Education*, April, 1932, p. 471.

tion and should consist of at least a thorough heart examination, an inquiry as to menstrual functioning, lung, eye, ear, nose and throat condition, and a check on nutritional condition. The examining physician should be supplied with a written statement explaining the activity elements of the various sports open to the girls. A physician who knows basketball only as boys play it will judge girls' basketball by that knowledge although errors in that direction will be on the side of safety. The physical education teacher should explain the activities in terms of energy demands so that the physician's instructions may be founded on understanding.

For careful supervision no girl should be allowed to engage in strenuous sports without a physician's permission and, even then, she should not be allowed to participate in such sports as basketball, baseball (softball), tennis, and horseback riding during the first few days of the menstrual period.

Women Coaches.—Careful supervision also demands well-trained women coaches. There are many men coaches who are better able to safeguard girl athletes than are many women coaches but of the two, if both are properly trained for the task, the woman is superior for girls' supervision. The public schools of small towns and industrial organizations offer practically the only situations in which men coaches for girls are found. These are the very situations, moreover, that furnish practically all the distressing reports commonly current about the misdirected leadership of girls' athletics. These are the towns that permit their high school girls to be exploited for the doubtful glory of the town. These are the towns that turn over the care of their girls to a man coach and put him under pressure to produce a winning team. Not all small towns fall in this category but the towns that do fall in this category are almost invariably small ones. Dr. J. Anna Norris of Minnesota says:

There are two reasons why girls' basketball should be coached and generally supervised by a woman. First, the coach should be able to advise the girl as to whether her condition is such that it is proper for her to play. The game makes such a strong appeal that the player is often tempted to disobey the rule, generally held among physical education instructors, that a girl should refrain from playing during the first three days of the menstrual period. The development of an honor system is one of the commonest ways of handling this problem. But the honor system must be followed up conscientiously and handled tactfully by the coach, who must take the initiative in speaking to the girls. The girl must also feel free to consult her coach regarding the

fundamental reasons for the rule. Obviously, a woman is the only person who can stand in this relationship to a girl.

Second, if we grant that girls should play basketball by the official women's rules which have been worked out for them by experienced women, it is obvious that they can be coached to develop the full range of possibilities of the game only by someone who has enjoyed playing by these rules and believes in them. It is difficult to imagine that a man would have had the opportunity to play by them or that he could enter heartily into the spirit of a game different in so many essential respects from his own.¹⁷

Girls' Rules.—The use of boys' rules for girls occurs almost entirely in the small town and in the industrial groups where only men coaches are available. Naturally men have never played girls' rules and do not understand them. Any man, however, who does understand the limitations of girls appreciates the wisdom of girls' rules and does not question their use. Again quoting Dr. Norris of Minnesota:

The game as played by the official rules for women is suitable for the average young woman, provided (1) she has undergone a physical examination which has pronounced her sound; (2) the instructor or coach supervising practice and play keeps run of the physical reaction during the game and afterwards, and confines the personnel of the group to those who show no undue or postponed fatigue or signs of heart embarrassment such as pallor, breathlessness or weakness; (3) no girl practices or plays during the first three days of her menstrual period; (4) the practice periods as well as the game are under strict supervision so that the time limits shall be enforced and the rules of the game lived up to in spirit as well as letter (many college girls report that while in high school they were allowed to practice an hour or more at a time); and (5) the instructor or coach has been in the habit of playing by girls' rules and believes in them.¹⁸

Principles of Girls' Athletics.—In dealing with athletics there are four major elements: the spectator, the group promoting the activity, the activity itself, and the individual who participates. Until it is determined which of these four is the major interest it is not possible to determine the principles involved. Educators center the main interest on the participant so that every question as to audience, gate receipts, type of playing, form of rules, kind of coaching, style of costumes, physical safeguards, and the countless minor questions arising from these must be settled in the light of the girl's own personal welfare in relation to the activity. This (the ultimate welfare of the participant) is indeed

¹⁷ *Op. cit.*

¹⁸ *Ibid.*

the underlying principle which *educators* recognize for all athletics. Quite obviously it is not accepted as the underlying principle by athletic clubs, athletic promoters, athletic coaches, and the athletic associations of many schools but it is the accepted principle of the true educator.

With the great underlying principle established as the welfare of the participant, it is an easy matter to deduce from it all other principles in regard to the subject. The Women's Division of the National Amateur Athletic Federation adopted this as its underlying principle when it first wrote its platform in 1923. Since then it has stoutly stood by this principle and has built its standards and its entire organization plans around it. In its platform it interprets this principle not only in light of the girl's physical welfare but also in the light of her social and emotional welfare as related to athletics.

INTRAMURAL ATHLETICS

Since educators have come to accept the theory that the athletic interests of the greatest number are best served by a program of sports for all there has arisen a great interest in programs of intramural athletics. In fact, so deep has become the interest in many boys' departments that their *extramural* ("without the walls of the school") program is being curtailed in favor of the new *intramural* ("within the walls of the school") program.

The Purpose of Intramural Sports.—The purpose of intramural sports is well stated by the Des Moines Public Schools, as follows:

Every child who is to attain optimum physical, intellectual and emotional development must have several hours of enjoyable, vigorous, physical activity every day. It should be out of doors whenever possible and in the company of others much of the time.

The regular physical education period does not satisfy this need. It functions mainly in developing skills, knowledges, appreciations and desires connected with physical activities. It does not give opportunity for sufficient practice in the things taught nor for self-directed natural use of them as an integral part of daily living. The school physical education period is essentially teacher directed. It is not just a free play period but a period of both work and play specifically controlled and directed along pre-determined lines.

The intramural sports program partially fulfills the total activity needs of the pupils and motivates further satisfactory types of activity. It provides practice in desirable sports conduct which will affect behavior in such sports away from school. It should be the first and basic

extra-curricular activity. The amount of participation should be at least one night a week per pupil.¹⁰

The Intramural Program.—Although educators strongly favor sports of the individual type for the prominent place in intramural programs because of their rich carry-over values for adult life, it should be kept in mind that youth is concerned with the present rather than with the future, and that high school age is the golden age for team sports. The personality development that may accrue from participation in team sports must be acquired at this age for in a few more years youth will have lost its zest for such activities and the particular educational opportunity will be past. A very small minority may retain an interest in participation in team activities far into adult life but the great majority will turn to individual sports if indeed they do not turn away from athletic participation altogether.

To hold the interest of all types and to serve the full purpose of an intramural program, both team and individual activities should be offered.

Lower Grades (Grades 1-4).—Play for young children should be as informal as possible. There should be no attention paid to winning and to group loyalties. These children are as yet individualists interested only in action for its own sake. The outcome of the action or with whom they act is so insignificant to them that any attempt to place them in an intramural program of group loyalties would be forcing an issue. However, free play programs should be arranged and the activities supervised. Any games they play naturally when left to themselves are proper activities for this program.

Intermediate Grades and Junior High Schools.—Definite play programs should be arranged for children for all periods when they are away from the school room yet under school supervision, such as the periods before school, recess, noon, and after school. Play at these times should not be unsupervised with the bolder children monopolizing the facilities and with undesirable leadership at the helm. These periods offer splendid opportunity for intramurals during which time the fundamentals of activities taught in the class physical education hour can be put into practice in play situations. Table XV suggests activities for such a program. In any one school the variety of activities offered depends, of course, upon the facilities and equipment available.

¹⁰ *Intra-Mural Sports*, Des Moines Public Schools, *Bulletin* No. 22, Bureau of Physical Education, September 25, 1930, p. 1.

A note of warning needs to be sounded in regard to too intensive organization of the recess and out-of-school periods for intramural

TABLE XV

SUGGESTED ACTIVITIES FOR AN INTRAMURAL PROGRAM
FOR INTERMEDIATE GRADES

Activities	5th Grade		6th Grade		7th Grade		8th Grade	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Badminton.....	—	—	×	×	×	×	×	×
Baseball (Modified).....	×	×	×	×	×	×	×	×
Basketball.....	—	—	—	—	×	—	×	—
Basketball (Modified)...	—	—	—	—	—	×	—	×
Bat Ball.....	×	×	×	×	—	—	—	—
Captain Ball.....	×	×	×	×	—	×	—	—
End Ball.....	×	×	×	×	—	×	—	×
Field Ball.....	×	×	×	×	×	×	—	×
Hit Pin Baseball.....	×	×	×	×	×	×	×	×
Horseshoes.....	—	—	—	—	×	×	×	×
Individual Athletic Events	×	×	×	×	×	×	×	×

{ Base running, baseball accuracy throws, basketball distance throws, }
 { basketball goal throws, soccer distance kicks, soccer dribble, etc., used }
 { singly, in pentathlons, and in decathlons. }

Kick Ball.....	×	×	—	—	—	—	—	—
Line Soccer.....	—	—	—	—	×	×	—	—
Long Ball.....	×	×	—	—	—	—	—	—
Paddle Tennis.....	—	—	×	×	×	×	×	×
Soccer.....	—	—	×	—	×	×	×	×
Speedball.....	—	—	—	—	×	×	×	×
Swimming.....	×	×	×	×	×	×	×	×
Stunts.....	×	×	×	×	×	×	×	×
Tennis.....	—	—	—	—	×	×	×	×
Tether Ball.....	×	×	×	×	×	×	×	×
Track Events.....	×	×	×	×	×	×	×	×
Volleyball.....	×	×	×	×	×	×	×	×

competition. The thought back of the organization plan is to have worthwhile activities in progress with the plans so laid and carried out that all children may have the experience of participation. There should

be no driving of the children into constant activity against their natural inclinations, no appeal to their emotions, no feeling that championships must be won. The participation during these periods should be primarily recreative in its reactions—not charged with emotionality. The intramural program of the short play periods should be the answer to the child's unspoken question, "What shall I play?" What to do should be answered and, to save time, the program should be planned and announced ahead of time. But it should be a period for *playing* according to an organized plan, not a time primarily for showing superiority over others.

High Schools.—A large variety of activities (twelve to sixteen at least) should be offered throughout the year to reach the seasonal interests of all types of girls. This would cover for each of three seasons (fall, winter, and spring) three to four activities which should consist of one highly organized team sport for the actively athletic type who likes cooperative activities, one team sport of lower organization which is only moderately strenuous to reach the interests of the average girl, one individual sport for the girl who is not "team-minded" and one moderate sport for the girl who is limited in activity because of physical disability.

The public schools of Kansas City suggest the following list for their intramural program for high school girls.²⁰

JUNIOR HIGH SCHOOL INTRAMURALS

	<i>Team Games</i>	<i>Individual Sports</i>
Fall	Field Ball, Modified Giant Volleyball Soccer, Modified	Aerial Darts Horseshoes Tennis Tether Ball
Winter	End Ball Nine Court Basketball Volleyball	Hand Tennis Ping Pong Shuffleboard Swimming and Life Saving Tenniquoits
Spring	Baseball Hit Pin Baseball Soccer Baseball	Aerial Darts Hand Tennis Horseshoes Tennis Track and Field

²⁰ Arranged from Curriculum Committee, *Tentative Course of Study in Physical Education for Junior and Senior High Schools*, Curriculum Bulletin No. 12, Kansas City Public Schools, Kansas City, Missouri, 1934, p. 127.

SENIOR HIGH SCHOOL INTRAMURALS

Fall	Hockey	Badminton
	Soccer	Horseshoes
	Speedball	Tennis
Winter	Basketball	Archery
	Volleyball	Ping Pong
		Shuffleboard
		Swimming and Life Saving
Spring	Baseball	Aerial Darts
	Giant Volleyball	Hand Tennis
		Tennis
		Track and Field
		Swimming and Life Saving

Many schools incorporate tumbling and dancing (creative, tap, and folk) in their girls' intramural programs in the form of clubs thus offering non-competitive as well as competitive activities.

Schools that are limited in indoor facilities need to build their intramural programs largely around out-of-door activities such as baseball, soccer, soccer baseball, tennis and speedball. Those that are also limited in playing fields can fall back upon hiking, bicycling, riding, skating, and, if the community affords proper facilities for hire, bowling should be added for it makes a popular addition to the sports offering.

Colleges.—The intramural program has spread downward from the upper school levels. It has for years been a recognized part of the physical education work in most colleges. Statistics of enrollment in intramurals for women at the various colleges and universities show the fluctuations in interest in the various sports as a marked rise in the popularity of intramurals especially during the seven-year period from 1925 to 1932. The percentage of the total enrollment of women students reached by the program at the University of Nebraska for that period ranged from 3+ per cent in 1925 to 35.1 per cent in 1932.

The activities that have called out the greatest number of women at this state university in the past three years are in order as follows: bowling, giant volleyball, soccer baseball, and basketball. The number of upper class women reached by the program has grown from 3 to 36 per cent in the past five years. This is an interesting commentary on the carry-over value of the class work required in the two under-class years. Although an increase from 3 to 36 percent within a five-year period is good, the percentage should be higher: were it higher an embarrassing lack of facilities would show up in most schools.

Grouping for Competition.—A school program of sports should be so organized and administered that it includes all students. Particularly should this be true in the grades and high school. No child should be deprived of the privilege of that particular personality development which comes from participation in sports wisely conducted. The failure to grant sports opportunities to certain children because of a diverting of the instructional attention to "varsity" or other highly specialized teams is inexcusable. The best way to give sports opportunity to all is through an intramural organization, one that is not planned as a mere feeder for "varsity" teams but one that is a program in itself: in other words an intramural program for the sake of intramurals.

Grouping in the Grades.—There are various methods of grouping children for participation to include all. Primary children should not be included in an intramural program although their free play hours should be organized and supervised. But all children from grade five on are ready for this development and should be organized into clubs with every child assigned to some club, even those who are physically handicapped. Such children can help with the organization plans and can help in many useful ways in the conduct of the sports by serving as score keepers, managers, and in similar capacities. But such should not be the sole opportunities for the handicapped children. Special games which they can play should be placed on the intramural list for their participation: their tournaments should be as carefully planned and conducted as the other tournaments and with as much school attention. In every way possible these children should be treated socially as normal children so that they may learn to adapt themselves to normal life situations.

In some grade schools the children are assigned membership anew in intramural clubs at the opening of each year but in others they are assigned, upon entrance to certain grades, to membership that continues in the same club until they enter high school, with the various club memberships augmented each year by the assignments of new entering students.

Some schools center their intramural clubs on the idea of Indian tribes, using tribal names and songs around which they build their loyalty traditions; others use Greek folklore and divide all the pupils into Spartans, Trojans, Athenians, and so on; still others form a League of Nations and willy-nilly assign the students to be Russians, Italians, Canadians, Irish, etc., showing little concern for the indi-

viduals' actual national characteristics in this make-believe world of sports which all children love. Perhaps the most popular assortment of names is that of the great universities, Harvard, Yale, Princeton, and so on down the list, or the names of well known professional athletic teams such as the White Sox, the Cardinals, etc. Some schools find it provocative of much fun to assume ridiculous names for their various intramural groups, such as The Lion Tamers, The Gang Busters, and The Hottentots, while others list names reminiscent of a trip to a zoo, or indicate affiliation to the various states of the Union. There is no end to the possibilities of names for groups.

Under such an organization scheme, there should be enough clubs for all, and every pupil in the school should be assigned to membership in a club. Each club should be large enough to enter at least one or two teams in all tournaments but none so large that some child might be given no opportunity to represent her club in some activity each season. The socializing influences are better if in each club there are all types of children, some handicapped, some of splendid physique, some of the older, some of the younger children, some highly skilled, and some "motor morons." In this way the handicapped of the various groups are pitted against each other and never against normal children: when they play off their matches, whether in marbles, ping pong, or checkers, it is nevertheless "the Trojans" against "the Spartans," each child playing for the glory of his greater group and the match as important in the intramural scheme as when the strong and sturdy "Trojans" meet the strong and sturdy "Spartans" in a contest of basketball. By this scheme the weak and younger and unskilled children receive the sympathetic attention, support, and leadership of the strong and older and skilled children who are their intramural "sisters" while the other group has opportunity in this way to experience the pleasures of learning to be thoughtful of others—their fellow citizens in the intramural venture. An imaginative teacher with a flair for training for worthy citizenship can do wonders with an intramural organization as her working device.

Grouping in the High School.—In the high schools of Columbus, Ohio, they have a unique method of grouping for the boys' intramurals. It might well be tried out in the girls' work for the sake of the initiative and leadership qualities it would develop. Any boy who so wishes may become a captain of a team by inviting some other boy to accept the appointment as assistant captain: with his assistance he organizes a team of boys who as yet have joined no team. If suc-

cessful in his venture the captain enters his team in the intramural program.²¹ This should be a splendid way to organize, into playing units, the many students in every school who do not belong to some form of organized units. With this plan the instructors reserve the right to reorganize teams that seem to be poorly balanced.

Grace Jones of Summit, New Jersey, advises the formation of home-room leagues for high schools, using round robin tournaments with every home-room playing every other room. She advises the use of the gymnasium class periods in some way to involve all girls so that every girl in every gymnasium class is a member of some color team. She suggests the use of the regular school club for indoor sports, working each week towards final tournaments of the year.²²

Grouping in the College.—Although residence units and class affiliations are the most commonly used groupings for college intramurals, much fun can be had by playing off some tournaments between departments of major interest, between the various colleges of a university, or between the various districts of the state as represented by the home towns of the students who come to the college from all over the state or from other states.

In most large colleges and universities the intramural program for women is arranged for competition around the social units—dormitories, sororities and rooming houses: in the smaller schools, class groupings are the common units. Some schools use a combination of these two groupings while others use rooming-house zones and physical education class-hour groups. While it is advisable to assign all pupils to a team, group, or club in the grade intramural program and to organize in the high school for as near 100 per cent participation as possible through use of interclass hour groupings and similar devices, it is out of the question to organize in the same manner at the college level. Here the program must be built up entirely around free elective participation: this is also the case in many high schools.

Scheduling the Program.—Failure to conduct an intramural program means in most cases lack of vision, initiative, and organization ability on the part of the persons in charge of physical education. Too many schools plead the excuse of no time in already crowded programs but it is poor economy in personality development of children to fail to

²¹ B. E. Wiggins, "High School Intramural Programs—Are They Worth While?" *Journal of Health and Physical Education*, January, 1931, p. 24.

²² Grace E. Jones, "An Intramural Organization for Girls," *Journal of Health and Physical Education*, October, 1931, p. 29.

provide for their sports training. The following suggestions are offered for overcoming this handicap:

1. Add a period a week to the physical education requirement and use it for intramurals or if that is not at all possible give up one of present periods for intramurals.
2. Organize an intramural sports club with periods during the school hours by getting permission to use one home room period each week.
3. Use the noon hour for sports that are not too active.
4. Use before-school hours.
5. Use after-school hours.²³

Furthermore, lack of equipment is no excuse for not having some sort of a program for something can be planned around whatever equipment is available. After the activities to be used by the various groups for the year are selected, seasonal charts for the entire year should be drawn up placing each activity in its selected season by grades. This should be done at the opening of the year before each season opens. The chart for that season should be subdivided into weekly program charts by clubs and activities. Following that, and at least one week before actual play is to begin on any given date, the week's program should be charted into daily schedules and posted so that each club or group will know exactly what activities it is to engage in and where on each day of the coming week. For each room there needs to be posted only that part of the complete chart covering the assignments of its members but the physical education teacher should have a complete chart of all assignments of each club, for each play period, for each day, for each week, for each season of the year.

The number of clubs and the number of activities to arrange depends upon the enrollment of pupils. Neilson and Van Hagen suggest a splendid weekly intramural program for two supervised periods of free play each day.²⁴

Noon Hour Programs.—In many large city schools practically all of the students remain at the school during the noon recess. In these schools it is a common practice for one-third of the pupils to be scheduled for the cafeteria at a time. While one group is scheduled for the cafeteria, a second group is assigned class or study hall duty and the third group is left to its own resources for the period involved.

²³ Jones, *loc. cit.*

²⁴ N. P. Neilson, and Winifred Van Hagen, *Physical Education for Elementary Schools*, A. S. Barnes and Company, New York, 1930.

This last group offers the incentive for the intramural organization. At the Alexandef Hamilton Junior High School of Oakland, California, the program has been organized so that every one of the sixteen hundred girls may take part each noon in some activity either as a player, spectator, or official, taking turns in the three capacities. Since this program has been inaugurated the students are no longer in the streets and in the stores; almost all of them remain on the school grounds for the entire noon hour.²⁵

In many small schools, also, certain groups of children remain at the school for the lunch hour. For these, even though a small group, there should be organized recreational activities which they can carry on for themselves. No matter what facilities are available no program should offer strenuous sports for a period immediately following lunch. The program outlined below is a suggestion for those schools that must plan to use free spaces in laboratories, corridors, basement rooms, and sidewalks about the building. Lack of a gymnasium is no excuse for failure to offer an intramural program.

NOON INTRAMURALS FOR THE SMALL SCHOOL

	Monday	Tuesday	Wednesday	Thursday	Friday
Grades 7 and 8	Ping Pong Horseshoes	Sidewalk- Tennis	Shuffleboard	Bull Board Paddle Ball	Volleyball
Freshman H. S.	Volleyball	Ping Pong Horseshoes	Sidewalk- Tennis	Shuffleboard	Bull Board Paddle Ball
Sophomore H. S.	Bull Board Paddle Ball	Volleyball	Ping Pong Horseshoes	Sidewalk- Tennis	Shuffleboard
Junior H. S.	Shuffleboard	Bull Board Paddle Ball	Volleyball	Ping Pong Horseshoes	Sidewalk- Tennis
Senior H. S.	Sidewalk- Tennis	Shuffleboard	Bull Board Paddle Ball	Volleyball	Ping Pong Horseshoes

The John Marshall High School of Los Angeles—a six year high school—carries on an extensive program of intramurals during the noon hour. Within the first two weeks of school each room elects an athletic leader. These leaders comprise three athletic councils, one for the two lower grades, one for the two middle grades, and one for the two upper grades. These councils meet before the opening of each type of activity and the organization and management of the new activities are explained to them. The duties of these representatives are (1) to

²⁵ Hilda Clute Kozman, "A Noon Play Program for Junior High School Girls," *Pentathlon*, October, 1929, pp. 8-9, 40-41.

look after the space assignments for their home room games; (2) to organize their room teams, see that captains are elected, and players are checked for eligibility; (3) to organize and run off any home-room elimination tournaments that are necessary before selecting teams; and (4) to assist their room players and the instructors in whatever ways are possible. Those students who are appointed by the physical director into membership in the official's club serve as officials. Eight such students are appointed from each of the three divisions.²⁶

The director assumes the responsibility of keeping all records. The standing of all teams is reported weekly on printed forms and the bulletin board is kept up to date with daily announcements of game schedules posted one week in advance. A daily announcement is made at the home-room period of all games for that noon hour and of the space to be used by each team. The games are played off in two lunch periods of forty minutes each. The captains are responsible for procuring and putting away the equipment, checking it out on a charge slip.²⁷

In this program each division is a unit by itself and plays off its own championship: interdivision games and championships are not played. In each division are twelve to sixteen home rooms which are divided into two groups of six to eight teams each. These teams play off a round robin twice around, each playing approximately ten games. The group winners then play a series of five games for division winner. This plan takes six weeks for an activity.²⁸

Within-School Intramurals.—In many schools the intramural activities have to be carried on before four o'clock but cannot be adapted to a noon program. Under these circumstances they must be run off in connection with the regular physical education classes. The last weeks of class work in each course are frequently spent in inter-class competition. If necessary, as it is at times, to play a few of these games after four o'clock, it occurs so seldom for any one girl that she usually can arrange to stay for the few special occasions. Such a program was carried on a few years ago for the college girls at the University of California, Los Angeles branch, because of the particular local situation that existed there at that time.²⁹

²⁶ J. B. Buehler, "Noon-Hour Intramural Organization," *Journal of Health and Physical Education*, October, 1932, pp. 34-35.

²⁷ *Ibid.*, p. 35.

²⁸ *Ibid.*, p. 36.

²⁹ Hazel J. Cubberley, "An Intensive Intramural Program," *Journal of Health and Physical Education*, January, 1930, p. 29.

After-School Intramurals.—In most small schools and in most colleges, the major part of the intramural program comes after four o'clock when all are free at the same time and, if the girls have their own facilities, when they are free of class work. In schools where the boys and girls share facilities, the gymnasium in the winter and the playing fields in the fall and spring are invariably reserved for the exclusive use of the boys' after-school sports except in those rare situations where the administrative powers believe that the education of girls is equally important with that of the boys and so rule on an equal division of time in the use of facilities. Recent years show a marked improvement in the recognition of girls' needs. The old excuse of having to prepare for boys' varsity practice is breaking down as the interscholastic program is receding before the rising tide of intramurals for boys.

The Ideal Athletic Program.—The ideal athletic program carries out the objectives set up for the program, not permitting extraneous considerations to enter to interfere with the purposes. To merit the term "ideal" it must measure up to the following standard:

1. It offers *all* pupils an opportunity to engage in athletic activities for recreational purposes.
2. It offers these opportunities in such a way that they:
 - a. Enhance rather than harm the pupil's health, physically, mentally and emotionally.
 - b. Enrich the pupil's social experiences.
 - c. Foster student leadership training.
3. It is open to all and interests all types and is so financed that all may enter.
4. It aims only at attainment of average skills for the majority yet provides opportunity for the highly skilled to derive satisfactions from higher achievements without at the same time jeopardizing the interests of those of lesser skills.
5. It teaches good sportsmanship.
6. It teaches appreciation of amateur sports—amateur in the true sense of the word, not amateur as degenerated by modern intercollegiate and interscholastic athletics as conducted by many men's and boys' athletic departments.
7. It supplements the credit-hour physical education work by offering opportunities in recreational situations:
 - a. To try skills learned in class.
 - b. To experiment with attitudes suggested in class.
 - c. To measure up to physical requirements as studied in class.
8. It does not serve as a substitute for the physical education class

work, thereby cheating the child of instructional periods in fundamentals of skills.

9. It protects the child from unfavorable publicity by turning all emphasis upon the activity and away from the performer.

10. It classifies all participants so that each competes only within his own classification.

11. It fosters only that type of competitive spirit which is educational and is socially desirable and which recognizes cooperation as an inseparable partner of competition.

12. It offers no material awards in connection with its activities.

ATHLETIC ORGANIZATIONS FOR GIRLS AND WOMEN

The full value of an athletic program can be attained by the individual only by participating in the organization and administration of the plans as well as by participating in the sports themselves. So that this end may be attained it is advisable to sponsor the formation of athletic clubs and associations which the students themselves should manage.

Any organization that exists below the secondary school level should be of loose organization and predominantly of teacher control: that age is not yet ready for highly organized clubs.

The Secondary School Athletic Associations.—The commonly used name for the athletic organization of high school girls is the Girls' Athletic Association, familiarly known as the *G. A. A.* Two inexpensive pamphlets have been published recently giving valuable information on the management of such an organization.³⁰ No sponsor of girls' athletics should be without these two pamphlets in her library.

State Organizations for High School Girls.—Twenty-one states have some type of state athletic organization most of them being planned primarily for the promotion and control of boys' interscholastic programs but giving "a nod" now and then in behalf of the girls' interests. Eight states have each a State League of High School Girls' Athletic Associations for the exclusive interest of the girls' programs:

³⁰ Marguerite M. Schwarz, *Girls' Athletic Association Handbook*, Department of Physical Education, University of Wisconsin, Madison, 1935. Price 75 cents.

A Study of Girls' Athletic Associations In The Secondary School—Objectives, Organization, Program, Women's Division of the National Amateur Athletic Federation, New York, May, 1934. Price 35 cents.

Each proposes ways of organizing a G.A.A., gives a sample constitution and suggests athletic programs, tests, point systems, and awards. The first gives, in addition, information for play days, water pageants, special events, and conduct of tournaments. The second gives, in addition, information on finances and publicity.

Illinois, Colorado, Nebraska, Alabama, North Carolina, Kansas, Iowa, and Oklahoma founded in the order named. Illinois, the originator of the State League idea, has the most highly organized association, maintaining an executive secretary and a central office in Chicago and sponsoring summer camps for its members.³¹ The Alabama and Oklahoma Leagues are closely related to their state departments of instruction.

All of these state organizations are opposed to interscholastic athletics for girls but do believe in sponsoring programs for participation of girls in their home schools. They suggest programs for intramural athletics and plans for conducting them, advise on G.A.A. organization, and offer state point systems and awards. It is common among them to have the local G.A.A. offer local awards for the lower level of achievements and the state league to offer state awards for the higher achievements.

The few states that maintain organizations for girls independent of the State High School Athletic Association (for boys) publish pamphlets as guides to their member schools and G.A.A.s.³²

College Athletic Associations.—The athletic organizations for women in colleges are called the Women's Athletic Associations, familiarly known as the *W.A.A.* Companions to the two pamphlets on high school organizations are the two issued by the same two groups on college organizations.³³ Both of these are valuable help to the college teacher.

The type of organization varies in the varying types of colleges. The local situation and local needs should determine the form. Whatever form is best to promote widespread participation of the students in the athletic program is the particular form that should be followed in each college. The college girl is usually protected by having in

³¹ It was organized in the early 1920's through the efforts of the late Lydia Clark, then Director of Physical Education for Women, State Normal School, Normal, Illinois and later Director of Physical Education for Women, The State University of Ohio. The Executive Secretary is Mrs. Vera Kraft Noble with office located at 11 South LaSalle Street, Chicago, Illinois.

³² A person wishing to get in touch with any of these organizations can procure the name and address of the secretary through a letter of inquiry sent to the office of the State Superintendent or to the Director of Physical Education for Women at the State University. One of these two persons usually serves as sponsor of the State League.

³³ Marguerite M. Schwarz, *Women's Athletic Association Handbook*, Department of Physical Education for Women, University of Wisconsin, Madison (no date given). Price 75 cents.

A Study of Women's Athletic Associations in Colleges and Universities, Women's Division of the National Amateur Athletic Federation, 303 West 42nd Street, New York, 1936. Price 35 cents.

charge of her program a teacher who, trained in physical education, is prepared to sponsor the W.A.A. without the need of outside assistance—a situation that does not exist in far too many high schools.

The National Organization of College Women's Athletic Associations.—The Athletic Federation of College Women, known as the A.F.C.W., is a federation made up of the women's athletic associations of colleges and universities from all sections of the country.⁸⁴ Its purpose is to guide and assist local units in their programs, and to bring together for discussion, inspiration, and exchange of ideas the leaders of the local groups. It is not at all interested in intercollegiate athletics or in the promotion of national or sectional contests as its name might readily imply to unknowing laymen. It is an organization for college girls, led by college girls. Although state leagues are for high school girls the organization leadership is taken over by the physical education teachers while in the A.F.C.W. all the offices, except the executive secretaryship, are held by the college girls themselves.

Since the organization does not sponsor, but on the contrary takes a stand against interscholastic athletics for women, the sports world is inclined to think that little in the way of athletics for women exists in American colleges. This is far from the truth since this national organization is a federation of over a hundred W.A.A.'s, each promoting year-round athletic programs for the rank and file of college women.

The Women's Division of the National Amateur Athletic Federation.—Every woman interested in girls' athletics should belong to this organization and give it her earnest support. This federation is made up of 332 individual members and 383 organizations and institutions (April, 1936). Girls' athletic associations, groups of women educators, public and private schools, colleges and universities, Y.W.C.A.'s, recreational clubs, and a few foreign organizations compose the membership. It was founded in Washington in April, 1923, when Mrs. Herbert Hoover called together about two hundred women leaders to consider the best interests of girls as related to athletics. Since its founding it has exerted a marked influence upon the promotion and administering of sane athletics for the girls and women of America. Its platform is as follows:

⁸⁴ Organized in 1918 under the leadership and inspiration of Miss Blanche Trilling, Director of Physical Education for Women, University of Wisconsin.

PLATFORM

(Revised, April, 1931)

SUITABLE ACTIVITIES

1. Promote such programs of athletic activities for all girls and women as shall meet their needs and as shall stimulate interest in activities that are suited to all ages and capacities.

PLAY FOR PLAY'S SAKE

2. Promote competition that stresses enjoyment of sport and the development of good sportsmanship and character rather than those types that emphasize the making and breaking of records and the winning of championships for the enjoyment of spectators or for the athletic reputation or commercial advantage of institutions and organizations.

AWARDS, NOT PRIZES

3. Promote interest in awards for athletic accomplishment that have little or no intrinsic value.

CONTROLLED PUBLICITY

4. Promote educational publicity that places the emphasis upon sport and its values rather than upon the competitors.

SUITABLE COSTUMES

5. Promote the use of suitable costumes for athletic activities.

SATISFACTORY SURROUNDINGS

6. Promote the provision of sanitary and adequate environment and facilities for athletic activities.

SUFFICIENT TIME

7. Promote the apportionment of adequate time allotment for a physical education program such as shall meet the needs of the various age groups for growth, development and the maintenance of physical fitness.

TRAINED WOMEN LEADERS

8. Promote the training and employment of women administrators, leaders and officials who are qualified to assume full responsibility for the physical education and recreation of girls and women.

HEALTH SUPERVISION

9. Protect the health of girls and women through the promotion of medical examinations and medical "follow-up" as a basis for participation in athletic competition, and of a system of supervision that shall assure a reasonable and sane attitude toward participation in activities at times of temporary physical unfitness.

MINIMIZED TRAVEL AND COMMERCIALIZATION

10. Protect athletic activities for girls and women from the dangers attendant upon competition that involves travel, and from their commercialization by interest in gate receipts.

APPROVED RULES

11. Promote the general adoption of approved rules for the conduct of athletics and games for girls and women.

STUDY

12. Promote the study of the existing rules of all sports to the end that they may be changed to meet the specific needs for girls and women.³⁵

A staff member of the Carnegie Foundation for the Advancement of Teaching has said of this platform:

An examination of this platform reveals the fact that the purpose of the Women's Division was not to do the same things for women as other organizations were doing for men, but to serve women's athletics appropriately and thoroughly without that fateful limitation of men's activities that has made certain phases of some women's lives ridiculous.³⁶

This organization is not a rules making body: it aims to serve as a clearing house for standards in girls' athletics and to encourage the promotion of sports and games for all girls and women, to establish such ideals and standards in connection with sports and games as will make certain that they are being wisely chosen, wisely promoted, and wisely supervised.³⁷

Women's Athletic Section of the American Physical Education Association.—From the early days of its founding in 1885 the A.P.E.A. has sponsored sections on various interests within the profession. For many years there has existed the Woman's Athletic Section which has functioned at conventions in the presentation of programs and has maintained committees to edit and interpret the rules of various sports for women.

In 1932 the section was reorganized to take over an active promotion of educational athletics for girls and women. Since this reorgani-

³⁵ For amplification of these principles see Florence Somer's *Principles of Women's Athletics*, Copyright, 1930, A. S. Barnes and Company, Publishers, New York.

³⁶ Howard J. Savage, "Athletics for Women from a National Point of View," *Journal of Health and Physical Education*, June, 1930, p. 12.

³⁷ From a statement issued from National headquarters, 303 West 42nd Street, New York City, March 1, 1935.

zation the committee on rules is called the Women's Athletic Rules and Editorial Committee: it now has fifteen sub-committees in all.³⁸ The section maintains, in addition, committees on Standards, Content, Research, Publicity, Motion Pictures, Radio and Policies,³⁹ all of which are coordinated to pull together for the one great purpose—the promotion of wholesome athletics for the girls and women of America. All women members of the American Physical Education Association automatically become members of the Women's Athletic Section and are eligible to take part in its work.

COEDUCATIONAL SPORTS

In speaking of programs of sports in which boys and girls play together, President Meader of Russell Sage College says:

The activities in a well-rounded program of physical education should furnish an excellent opportunity for helping them to know each other better and get on together more harmoniously. If the homes of the future are to be happy, satisfying, stable institutions, the husbands and wives must be attuned to each other's interests, habits, and temperaments. Such knowledge of each other can be acquired only through constant association, both in work and play. Why should not physical education make a significant contribution to happy home life in this way? ⁴⁰

Who of Mr. Brittling's "friends" will ever forget that hockey match with the whole Brittling family, their guests, and neighbors engaged in the fun together? All were involved except "the infant in

³⁸ The publications of this Committee have been discussed in Chapter II.

³⁹ The Committee on Standards has published a pamphlet, *Standards in Athletics For Girls and Women*, which may be procured from the Executive Secretary of A.P.E.A. for 60 cents a copy. Although it may be somewhat wordy for the inexperienced and untrained who do not "speak the professional language," it is none the less a pamphlet with which all leaders of girls athletics should be familiar.

The author does not, however, concur with one statement on page 37, namely, "In many schools the interscholastic athletic program for girls has been replaced entirely by an intramural system. . . . It was a practical measure to promote more athletics and does not indicate that the interscholastic system is any better or any worse than the intramural system." A large body of leaders in women's sports (educational sports) quite definitely acknowledge the intramural system as being so much the better of the two that they are constantly at work to bring about the substitution of intramurals for interscholastics wherever possible. Men as well as women educators are active in this movement.

The reader should supplement this pamphlet by the use of the Platform of the Woman's Division of N.A.A.F. which is a statement of standards in a concise form which can be easily understood at a hasty glance by even the uninitiated.

⁴⁰ J. L. Meader, "Physical Education and Enriched Living," *Journal of Health and Physical Education*, June, 1936, p. 364.

the perambulator and the outwardly calm but inwardly resentful aunt, who wheeled the child up and down in a position of maximum danger just behind the unnetted goal. . . ." ⁴¹ The author recalls many a happy Saturday morning of her own coeducational college days when some of the football boys would join members of the girls' hockey team for an impromptu game back of the girls' dormitory, the girls carrying the ball in the forward line, the boys serving as halfbacks. These were *sub rosa* matches, not on the college calendar or in the physical education program, but they were great fun and offered entirely wholesome companionship from which grew staunch friendships surviving many an accidental, yet none the less wicked, whack on the shin—not an altogether easy thing for girls to accept in their relationships with boys, although important if they are really to be accepted as companions on an equal footing. How many women demand equality with men in the business and professional world but how few of them have been schooled to accept it! Physical education should use its educational tools (sports and games) to contribute its share to this social education of the child. As boys and girls learn how to play well together, surely they will learn all the easier thereby how to work well together: it takes both experiences to learn how to live well together as good companions. In the words of Henry S. Pritchett, former President of the Carnegie Foundation for the Advancement of Learning, "for the sake of every youth whom school and college sport touches, the desired moral and social values that it can yield must be made realities." ⁴²

Mixed Sports in the High School.—The movement for mixed sports seems to have its greatest impetus in the high schools. In Boulder, Colorado, the boys and girls are playing bounce ball together. They plan to promote a large program of mixed sports and recreation when their new building is completed. In the Oliver High School of Pittsburgh, with an enrollment of three thousand, they held a coeducational play day during the first semester of 1935–1936 with four mixed couples on each team for deck tennis, shuffleboard, paddle tennis, and volleyball. After a round of these games they did round and square dancing, which both the boys and girls had previously learned in mixed classes during credit hours, and then had refreshments to close the

⁴¹ H. G. Wells, *Mr. Britling Sees It Through*, The Macmillan Company, New York, 1917, p. 81.

⁴² H. W. Carson Ryan, Jr. *The Literature of American School and College Athletics*, *Bulletin* No. 24, The Carnegie Foundation for the Advancement of Teaching, New York, 1929, Foreword, p. vii.

party. This event was such a success that during the following semester they ran off tournaments in all these activities in frequent after-school parties and in some mixed class hours. Miss Evelyn Spindler, the Director of Physical Education for Girls, writes:

We have put too much emphasis and time on athletic activities of high organization to the exclusion of the people of average skills with a desire to play just for fun and for the social experience. . . . The boys and girls seem to enjoy the mixed recreation equally but the boys are much more bashful though in participating. . . . College offers opportunities beyond high schools and yet most of our students do not go to college. Most of our girls and boys do not know how or what to play in groups. They just "date" and it is a movie or a dance hall. That is all most of them know or can get.⁴³

In the John Adams High School of Cleveland the boys come out for social dancing in an overwhelming majority but in a minority for the mixed games such as ping pong, deck tennis, and so forth. In North High School in Des Moines, two hundred boys and five hundred girls, out of a possible two thousand, took part in their mixed recreational sports in the year 1935-1936. They used a variety of activities in this program: swimming, diving, volleyball, cageball, giant volleyball, tennis, golf, ping pong, badminton, deck tennis, social dancing and advanced ballroom dancing.

Mixed Sports in the College.—Among the colleges Vassar was the first to fall into line in this movement of organizing for mixed sports within the schools. In their new gymnasium, which is of course a woman's gymnasium, being a woman's college, they have built dressing, locker, and shower rooms for men. In connection with their swimming pool they keep a supply of men's bathing suits. The building with its opportunities for a great variety of recreational activities is open all day and all evening on Saturdays and Sundays when the women students may take their guests to play games or swim with them free of charge. Each week-end it is in constant use from early morning till the night closing hour.

At Iowa State College (Ames) the W.A.A., with the help of the women's physical education department, gives a recreation party in the women's gymnasium each Friday night. In order to give a chance to all who wish to come they reserve each evening for a specified group of boys who bring their "dates." These evenings are very popular,

⁴³ Letter to author, March, 1936.

spent at aerial darts, deck tennis, ping pong, shuffleboard and roller skating.

From George Williams College come six games of basketball type arranged for coeducational sports.⁴⁴ The above are only three examples of the fast growing movement in the college world. Mixed swimming hours have been in vogue for a number of years and mixed social dancing has existed as long as colleges themselves have existed; in fact it has quite monopolized the recreational evening scene until the present rising popularity of mixed-sports evenings.

The latest trend in mixed sports in the college world is the joint outing trips between men's and women's colleges in the east sponsored by the Intercollegiate Outing Club Association which was founded at Dartmouth College in May, 1932. Three years later twenty-two eastern colleges had joined. It sponsors an annual outing conference the first week-end in May and a joint outing trip in September.⁴⁵

⁴⁴ H. D. Edgren, "A Demonstration of Co-recreational Fun," *Journal of Health and Physical Education*, December, 1935, p. 38.

⁴⁵ Leon Magoon, "The Intercollegiate Outing Club Association," *Recreation*, February, 1935, pp. 515-50.

CHAPTER XVII
THE CONDUCT OF SPORTS

"He that wrestles with us strengthens our nerves and sharpens our skill. Our antagonist is our helper."

—BURKE

ALTHOUGH THE PHYSICAL education teacher should do the major work of organizing the sports program the pupils themselves should assume, under her direction, the major responsibilities of carrying out the plans. One of the greatest responsibilities of the teacher comes in the preliminary decision as to the type of contest to conduct for the particular activity under question, taking into consideration the number of contestants, the time range for the tournament and the amount of participation desirable for all teams. The success of the contest depends largely upon the form of tournament selected. There are many forms from which a selection can be made and there may be as many variations as there are numbers of teachers with initiative and ingenuity to make adaptations to their particular situations and needs. The various forms are discussed below.

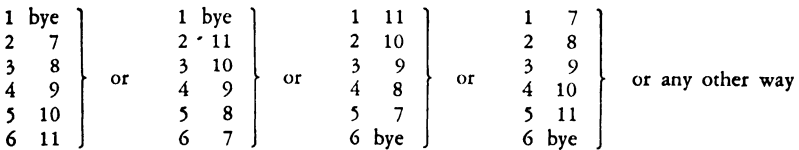
TYPES OF TOURNAMENTS¹

Round Robin Tournament.—This is the form of tournament that should be used when it is desirable to have each team play every other team. It has the advantage over other forms in that it assures an equal amount of participation by all teams, but it should not be used if there are many teams entered, for too lengthy a schedule turns into an endurance contest. To ascertain the number of games it will take to play off such a tournament multiply the number of teams entered by one less than that number and divide the product by two. For example 12 teams will call for 12 times 11 divided by 2 or 66 games. The length of time it will take to play off this type of tournament depends entirely upon the number of games that can be played off in a week.

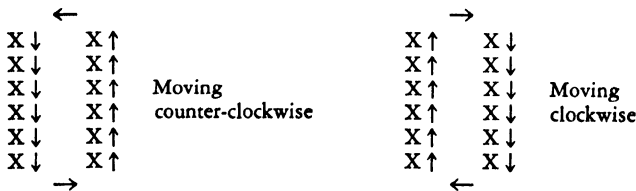
¹ In all tournaments the word "bye" is used to designate that a team is not mated for that round and rests while the others play.

No team should be allowed to play more than once in one day: as a rule it should not play even on consecutive days. Guarding on this point and on the other hand guarding against such long waits between matches that enthusiasm wanes, calls for careful planning of the schedule of games. If these matters cannot be properly arranged for the number of games necessary then some other form of tournament should be considered.

Pairing.—The pairing for this type of tournament frequently seems difficult to the novice but it need not be so. Of the many methods of pairing, only one is presented here, the revolving column method. To pair off by this method write down the numbers of the teams in two vertical columns, using the word "bye" in the place of a team number if there is an uneven number. Then pair them as their numbers are coupled off in the two columns. It makes no difference what order is used in setting down the two rows of numbers but once set down in a certain order for the first series that order must be maintained for all following series. For example, eleven teams would be arranged in two columns as follows:



Having selected the form of arrangement desired for the first series of games, find the pairings of teams for each succeeding series by moving each number forward one notch in the rectangle. Move either clockwise or counter-clockwise; it makes no difference which just as long as the direction decided upon is maintained in all subsequent moves.



If there is a bye it should remain stationary, each number jumping over it to the next place. If the number of teams is even then one of

the team numbers should remain stationary (any one but always the same one), otherwise each will be paired twice with some teams and not at all with others. Having decided on the form of the columns for the first series, whether to move clockwise or counter-clockwise, and which number shall be stationary, all is in readiness to make the pairings for each round. One round fewer than the number of teams entered will be necessary. As an example, the pairings and series for a round robin tournament for eight teams is given below.

Arrange in two columns the figures representing the eight teams starting with 1 at the top of the left hand column and moving downward and counter-clockwise, keeping number 1 stationary in all subsequent moves for the other six of the seven rounds. This gives the following arrangement:

1st round	2nd round	3rd round	4th round	5th round	6th round	7th round
1-8	1-7	1-6	1-5	1-4	1-3	1-2
2-7	8-6	7-5	6-4	5-3	4-2	3-8
3-6	2-5	8-4	7-3	6-2	5-8	4-7
4-5	3-4	2-3	8-2	7-8	6-7	5-6

Although the pairings would have been different for each round, the final outcome of each team playing every other team would be the same had the numbers been moved clockwise or had any other number than number 1 remained stationary or had the two columns for the first round been arranged in any other possible manner of arrangement with eight numbers in two columns. The above procedure should be followed for any number of teams, always using bye for the extra number when an uneven number of teams is entered.

Scheduling the Games.—After the pairings are determined to assure that each team meets every other team, there remains the task of scheduling the matches according to the facilities and hours available. The games should be arranged in such a series that no team plays too frequently or is out of the play too frequently within certain time limits.

In the revolving column method above, each column can represent a series of games played in the order given except that the first pair should be moved to the end of the line after each series so that each team will not only play in every series but will play in a rotating order within the series.

An excellent guide to follow for tournament schedules of from three to eight teams ² is as follows:

	Three Teams	Four Teams	Five Teams	Six Teams	Seven Teams	Eight Teams	
First Series	1-2 (3)	1-2 3-4	1-2 3-4 (5)	1-2 3-4 5-6	1-2 3-4 5-6 (7)	1-2 3-4	5-6 7-8
Second Series	1-3 (2)	1-3 2-4	1-3 2-5 (4)	1-3 2-5 4-6	1-3 2-5 4-7 (6)	1-3 2-4	5-7 6-8
Third Series	2-3 (1)	1-4 2-3	1-5 2-4 (3)	1-4 2-6 3-5	1-4 2-6 3-7 (5)	1-4 2-3	5-8 6-7
Fourth Series . . . . .	...	...	1-4 3-5 (2)	1-5 2-4 3-6	1-5 2-7 3-6 (4)	1-5 2-8	3-7 4-6
Fifth Series . . . . .	...	...	2-3 4-5 (1)	1-6 2-3 4-5	1-6 2-4 5-7 (3)	1-6 2-5	3-8 4-7
Sixth Series . . . . .	...	...	...	...	1-7 3-5 4-6 (2)	1-7 2-6	3-5 4-8
Seventh Series . . . . .	...	...	...	...	2-3 4-5 6-7 (1)	1-8 2-7	3-6 4-5

The numbers in parentheses above represent the teams that are idle for any given series. With any of the above methods the scheduling by series is arranged along with the pairing: all that remains is to fill in the names of the teams represented by the numbers and indicate the dates, hours and room assignment of each match. The method of pairing need not be posted for the students. There will be announcements enough to prepare in order to post for them the schedule as finally arranged.

Placing the Teams.—After the pairing and scheduling is planned the teams should be assigned their places on the schedule. The team assigned No. 1 has its name written into No. 1 place throughout the schedule and so on throughout the range of teams and numbers. To avoid charges of partiality, the team captains should draw by lot.

² Chart reproduced from D. Oberteuffer, *A Program for Junior and Senior High Schools*, Department of Education, State of Ohio, Columbus, Ohio, 1932, p. 80.

Keeping Records.—An interesting method of keeping the record of games and scores for a round robin tournament is shown in Table XVI. To find the record of any team, find that team's name in the upper row and read down.

TABLE XVI

RECORD OF GAMES FOR ROUND ROBIN TOURNAMENT

TROJANS	ROMANS	BRITONS	GOTHS	NORMANS	SPARTANS
NOTICE	TROJANS Date..... Won by..... Score.....	TROJANS Date..... Won by..... Score.....	TROJANS Date..... Won by..... Score.....	TROJANS Date..... Won by..... Score.....	TROJANS Date..... Won by..... Score.....
ROMANS Date..... Won by..... Score.....	ALL GAMES	ROMANS Date..... Won by..... Score.....	ROMANS Date..... Won by..... Score.....	ROMANS Date..... Won by..... Score.....	ROMANS Date..... Won by..... Score.....
BRITONS Date..... Won by..... Score.....	BRITONS Date..... Won by..... Score.....	START	BRITONS Date..... Won by..... Score.....	BRITONS Date..... Won by..... Score.....	BRITONS Date..... Won by..... Score.....
GOTHS Date..... Won by..... Score.....	GOTHS Date..... Won by..... Score.....	GOTHS Date..... Won by..... Score.....	PROMPT- LY	GOTHS Date..... Won by..... Score.....	GOTHS Date..... Won by..... Score.....
NORMANS Date..... Won by..... Score.....	NORMANS Date..... Won by..... Score.....	NORMANS Date..... Won by..... Score.....	NORMANS Date..... Won by..... Score.....	AT	NORMANS Date..... Won by..... Score.....
SPARTANS Date..... Won by..... Score.....	SPARTANS Date..... Won by..... Score.....	SPARTANS Date..... Won by..... Score.....	SPARTANS Date..... Won by..... Score.....	SPARTANS Date..... Won by..... Score.....	4 P.M.

Scoring.—To figure the standing of each team, divide the number of games it has won by the number of games it has played. This will give its percentage. The team with the highest percentage is the winner of the tournament.

League Tournament Plan.—When there are too many teams entered for each team to play every other team in the time available, or when many teams would be poorly matched, they should be divided into leagues with a given number of teams to a league. Then all the teams within each league should play each other. If the division is made solely because of too large numbers the champions of each league may at the conclusion of the round robin play be pitted against each other as in the combination plan discussed below. But if the division is made because of lack of homogeneity then each league's tournament should be an end in itself.

Elimination Tournament.—When it is desirable to play off matches in such a way that all games lead up to a climax in the final selection of a champion, or when many teams are entered and a number of them must be quickly disposed of, the elimination plan is the preferred plan of tournament. Frequently this plan is desired for the first reason, but the elimination, in the first round, of one-half of all teams entered and the still further elimination in the second round of one-half of those left, and so on, is as a rule undesirable. To avoid this a combination tournament can be used or many variations of the elimination plan itself can be employed. These plans are discussed later.

A straight elimination tournament is charted as in Figure 57, using spaces for multiples of eight and filling in with byes as necessary in order to avoid the use of a bye in subsequent rounds. The placing of the byes is a purely arbitrary matter, but to avoid them in later rounds, no two should be placed together. Once the order of the byes and numbers is arranged on the chart and the teams have drawn for places there must be no changing of places.

The Preliminary Round.—Some people like to draw up tournament charts without using a bye and so they use a "preliminary round" which is in effect exactly the same as using byes. (Fig. 58.) To determine the number of teams to be placed in the preliminary round, subtract from the number of teams entered the first number just below that number which is a power of two. The result will represent the number of teams that must be eliminated in the preliminary round. Twice that number of teams must be placed in that round on the chart. For exam-

ple ten teams are entered: ten minus eight (the first number below ten which is a power of two) leaves two: two teams must be eliminated before the first round, hence four teams must be placed by lot in the preliminary round and the chart indicating what numbers are to be in that preliminary round must be made before any teams draw for place.

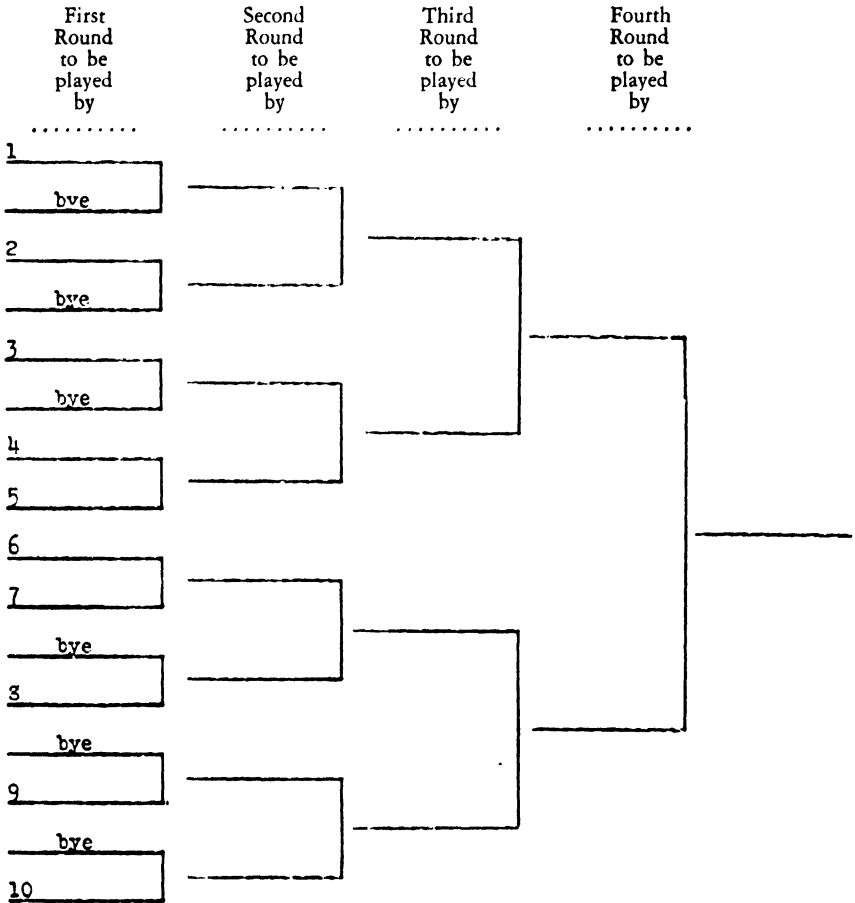


FIG. 57.—Chart for an elimination tournament for ten teams using byes.

Pairing.—Pairing for this type of competition may be done arbitrarily by the instructor and tournament managers or each team may draw lots for its place on the chart.

Scheduling.—After the drawing is completed the name of each team should be written into the line represented by the number it drew. The remaining spaces are filled in as the winners of matches are determined.

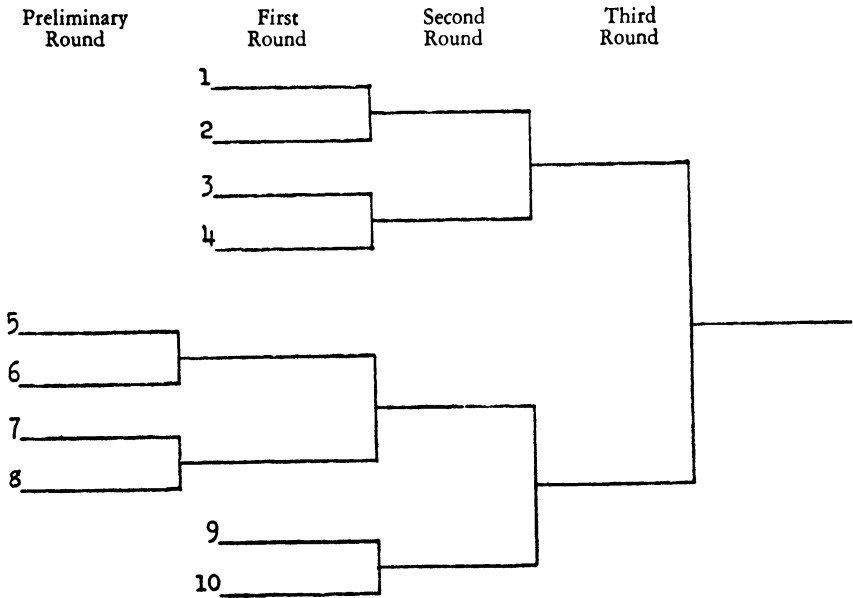


FIG. 58.—*Chart for an elimination tournament for ten teams using a preliminary round.*

Objections.—Although this plan is widely used for tennis and similar games as well as for many team sports there are the three following main objections to it:

1. There is opportunity for too little participation for most of the teams. The fewer the teams, the less the participation for even the finalists. In a tournament of eight teams the champion will play in only three matches and in a tournament of sixteen teams the champion will play in only four matches. By the round robin plan these champions would have played in seven and fifteen matches respectively, as would have all other teams, whereas four teams of one set and eight teams of the other will play only one match each.

2. There is the serious possibility that the two best teams may be pitted against each other in the first round, thus giving the second best no chance to appear in the finals.

3. The runner up (the team that played in the finals against the champion) does not with certainty represent the next best team since any one of the teams in the half of the bracket to which it did not belong may be superior.

All of these objections can be met, however. The first concerning too little participation is easily eliminated by the combination plan given below. The second objection can be met in two ways: by "seed-

ing" or by a "second ranking" round. By seeding is meant an arbitrary fixing of the original order of play by which the instructor and the tournament managers, or some committee or group considered competent for the task, rate the various teams by means of whatever information they may be able to procure as to their abilities. They then pair the better teams with the poorer teams so that none of the better ones will be eliminated in the first round. This method frequently leads to hard feelings and to charges of favoritism, and for that reason it is not recommended. Also, rating groups, often, by poor judgment, defeat their own purposes. Another, and a better way, to meet the objection is by the "second-place plan" which is a logical and fair method and will meet the third objection also—that of the inability to determine the second best player. The plan is discussed later.

Consolation or Winner-Loser Tournament.—This is a variation of the elimination tournament. In this plan all teams eliminated in the first round are matched against each other and they then play off an independent tournament to decide the championship of the consolation group. (Fig. 59.) Each team drops out of the cham-

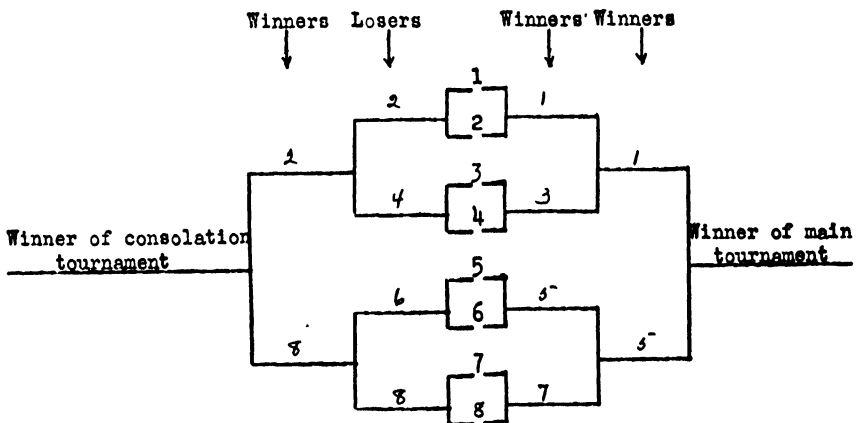


FIG. 59.—Sample chart of a winner-loser tournament as played up to the finals.

pionship tournament as soon as it is defeated. If it is defeated in the first round of play it plays again in the first round of the consolation tournament after which it drops out as soon as defeated. This permits at least two games for each team with all teams out at the second defeat.

To forestall too quick elimination from participation some tournament managers rule that all contests shall be decided only by winning two out of three matches.

The Difference in the Numbers of Games Required in Various Forms of Tournament.—A study of Table XVII shows the advantages of various types of tournaments for varying numbers of

TABLE XVII
NUMBER OF GAMES REQUIRED IN VARIOUS TYPES
OF TOURNAMENTS
ACCORDING TO THE NUMBER OF TEAMS ENTERED

Number of Teams Entered	Round Robin Tournament No. Games Required	Elimination Tournament No. Games Required	Winner-Loser Elimination Tournament No. Games Required	Winner-Loser Elimination playing for 2 best out of 3 games No. Games Required
2	1 game	1 game	1 game	2-3 games
3	3 games	2 games	2 games	4-6 "
4	6 "	3 "	4 "	8-12 "
5	10 "	4 "	6 "	12-18 "
6	15 "	5 "	7 "	14-21 "
7	21 "	6 "	9 "	18-27 "
8	28 "	7 "	10 "	20-30 "
9	36 "	8 "	12 "	24-36 "
10	45 "	9 "	13 "	26-39 "
11	55 "	10 "	15 "	30-45 "
12	66 "	11 "	16 "	32-48 "
13	78 "	12 "	18 "	36-54 "
14	91 "	13 "	19 "	38-57 "
15	105 "	14 "	21 "	42-63 "
16	120 "	15 "	22 "	44-66 "
17	136 "	16 "	24 "	48-72 "
18	153 "	17 "	25 "	50-75 "
19	171 "	18 "	27 "	54-81 "
20	190 "	19 "	28 "	56-84 "
21	210 "	20 "	30 "	60-90 "
22	231 "	21 "	31 "	62-93 "
23	253 "	22 "	33 "	66-99 "
24	276 "	23 "	34 "	68-102 "

teams entered. It shows plainly that with as few teams as two to nine, the winner-loser elimination plan, playing for the two best games out of three, offers the greatest participation and should be employed if time will permit, and if it is not particularly desirous that every team

play every other team. This plan precludes a team's playing with certain teams once, in favor of playing two to three games each with certain other teams. For a tournament with more than nine teams entered, the round robin plan offers the greatest participation for all players. As the number of teams mounts to fifteen and above, the number of games required in a round robin or even a winner-lost elimination playing for two best games out of three, becomes prohibitive for any sports tournament unless it is permissible for it to absorb a major portion of the entire intramural time within a year's program. It is necessary to study the table in reference to the number of teams entered, the number of games that can be run off in a week, and the number of weeks at the disposal of the activity in order to determine what type of tournament it is best to use. A schedule that will cover ten games a week for a season of six weeks will allow for sixty games. In the event of eighteen teams entered the winner-loser elimination plan, playing for the two best out of three games each time, will give the most participation for the time at disposal. Many of the matches will end in the two games only and so the sixty allowed will be quite apt to fall within the safe time since the range is for fifty to seventy-five games. But if the season must be four weeks covering a possible forty games only, the winner-loser plan for twenty-five games for eighteen teams will be best. The extra allowance can be covered by ruling the last two rounds to be played for the two best out of three games. This will add interest to the final matches and will add twelve to eighteen games to the schedule. If, however, there are eighteen teams and only time to play off five games a week and only four weeks for the tournament, then the one-way elimination plan of seventeen games for the eighteen teams would be the best choice.

Second-Place Plan.—When an elimination tournament is finished the champion is determined but the runner-up (the team that was defeated in the finals for the championship) is not for a certainty the second best team for, although it has eliminated all teams in one-half of the bracket to arrive at the finals, it has never been pitted against any of the teams of the other half of the bracket except the championship team. But it is a relatively simple matter to go on with the tournament for the two or three more games that are necessary to determine second place.

In the case of a consolation tournament having been played off simultaneously with the main tournament the method shown in Figure 60 will determine second place. By this method the losers in the cham-

pionship tournament move over to the consolation group; not only those who lost in the first round of play but those who lose in any later rounds; even the semi-finalist moves and must win from the winner of the consolation tournament if he is to be declared second-place winner.

If an elimination tournament is played without the accompanying consolation tournament the second-place winner may be determined by adding to the tournament two, or at the most, three extra games. The plan is as follows: In Figure 59 team number 5 is the runner-up but numbers 2, 3 and 4 may all be better than 5. But 4 has been defeated by 3 so 5 need but defend its title against numbers 2 and 3. It plays number 2 and if it wins must yet play number 3. If it wins from 3 also it is then acknowledged second best player. If either number 2 or

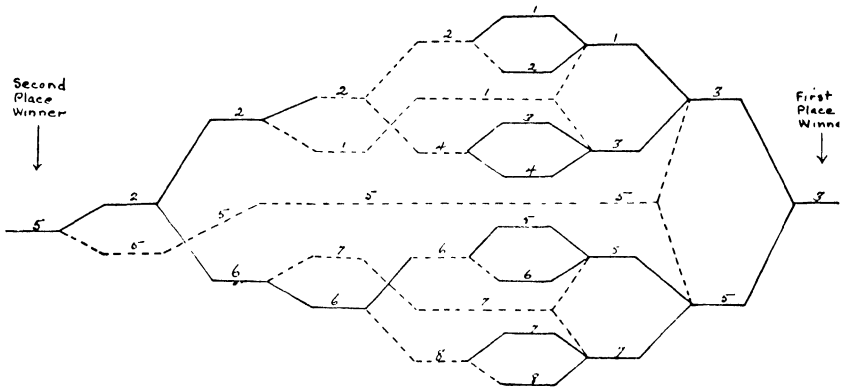


FIG. 60.—Second-place plan of tournament with eight teams. Dotted lines represent losers moving into consolation play for a chance to win second place.

3 defeats number 5 then they play each other for the ranking place. Thus two games have settled the matter in a tournament with eight teams. It will take three additional games in a tournament of from eight to sixteen teams and four extra games in a tournament with seventeen to thirty-two teams.

Loser Tournament Plan.—In a consolation tournament those defeated in the first round form a sub-elimination tournament and within it only those who win go on but in a loser tournament only those who are defeated stay in. At first thought the idea may not seem a good one: indeed it does call for wise leadership if it is not to be turned into an opportunity to poke fun at poor players but it offers an advantage in that the poorer the players, the more opportunity they get for playing, and frequently opportunity to participate is all that

many newcomers to a sport need to make them good players later on. This advantage should be emphasized to the players if too many defeats are apt to be discouraging.

In order to capitalize on this advantage, such a tournament should never end by merely ascertaining what team is the champion loser. The thought that in all probabilities this team is a much better one at the close of the tournament than at the start, because of its experience gained in many matches, although always the loser, should be the occasion to give this "champion-loser" team a final chance to challenge other teams to play it again. A ladder tournament played for a certain period of time might well be used with certain chosen teams, each defending itself against the risk of a defeat, in which case it would have to accept the title "champion loser." Or an elimination tournament might be played giving the lower team a chance to lose its stigma by winning some game in a round with all the original losers of the first round who were winners in the first round of the loser tournament. Those teams played only twice each, once to lose and once to win, and so were eliminated. They should be good challenge material for the now more experienced but originally poorer team.

Second-Chance Tournament Plan.—This form of tournament gives all losers a second chance to get back into the contest with another opportunity to pit their ability against the first round winners. The consolation form of play gives them a second chance to play but not again with the original winners. Figure 61 shows a second-chance plan of tournament as scheduled for eight teams. The Recreation Department of Newport, Rhode Island announced a similar scheme some years ago calling it a Boomerang Tournament,³ but that differs from the plan of Figure 61 in that it leaves the losers to challenge each other so that a previously arranged schedule of pairings cannot be followed. It also finally works out at the end to a winner of winners and a winner of losers so it involves the consolation idea. By the scheme of Figure 60 placings are predetermined and each team that loses, as well as each team that wins, knows within what bracket it falls for its next game. In both plans the winners of the winners' rounds are idle for the next round while the losers are having their second chance to come back. This chance holds for every round up to the semi-finals.

By this plan every team plays from two to six times. The number would be increased with an increased number of teams entered. Figure

³ Arthur Leland, "A Boomerang Tournament," *Journal of Health and Physical Education*, April, 1930, p. 36.

62 shows such a tournament charted for sixteen teams. In making the chart after the number of teams is definitely known, care must be taken in planning an occasionally needed bye and also in guarding against failure to carry out some of the dotted lines representing losers. As three-fourths of those entered in each winners' round return for

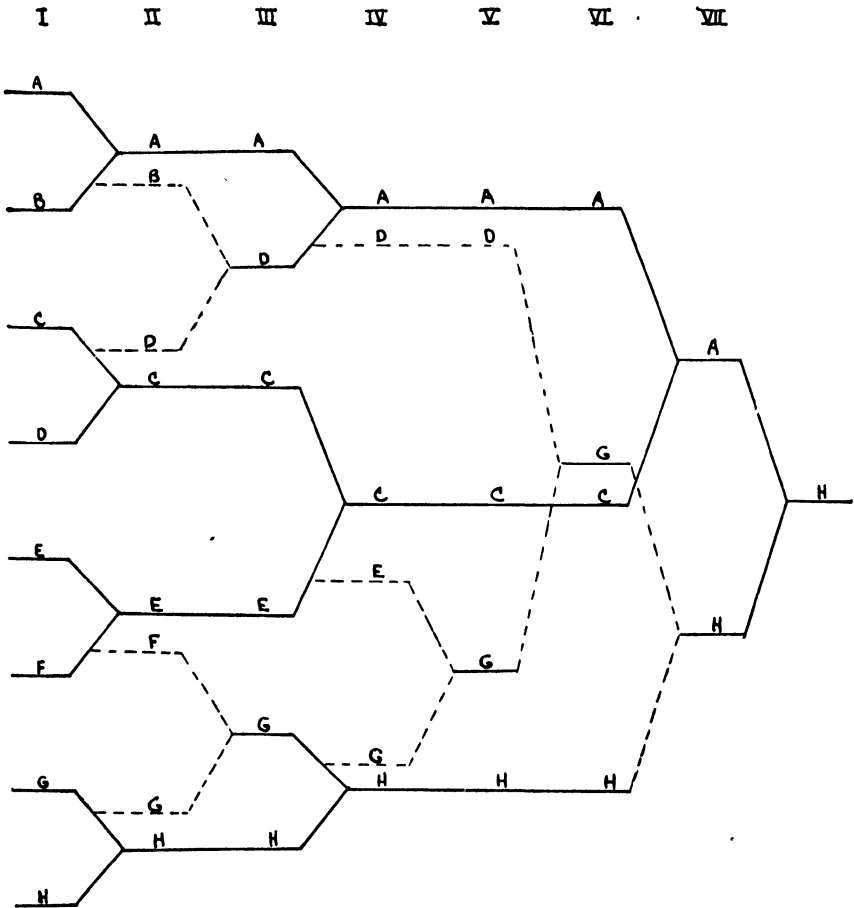


FIG. 61.—Chart of a second-chance tournament played through to the finish. Dotted lines represent losers who remain in the play until they lose a second time.

the next round of winners instead of one-half as in an ordinary elimination plan, the ordinary rule concerning byes does not apply.

Combination Tournament Plan.—Frequently so many teams are entered that it is impossible to play off a round robin tournament and yet the elimination tournament plan is not desirable since it will

give many of the teams very little participation. For such a problem the combination tournament plan offers a solution. By this plan all teams entered play against a number of teams as in the opening of a round robin tournament and then the play is brought to a spectacular close by finishing with an elimination tournament, working up to semi-finals and finals with a championship game to be played off for the climax. For such a plan either a ladder or round robin type of tourna-

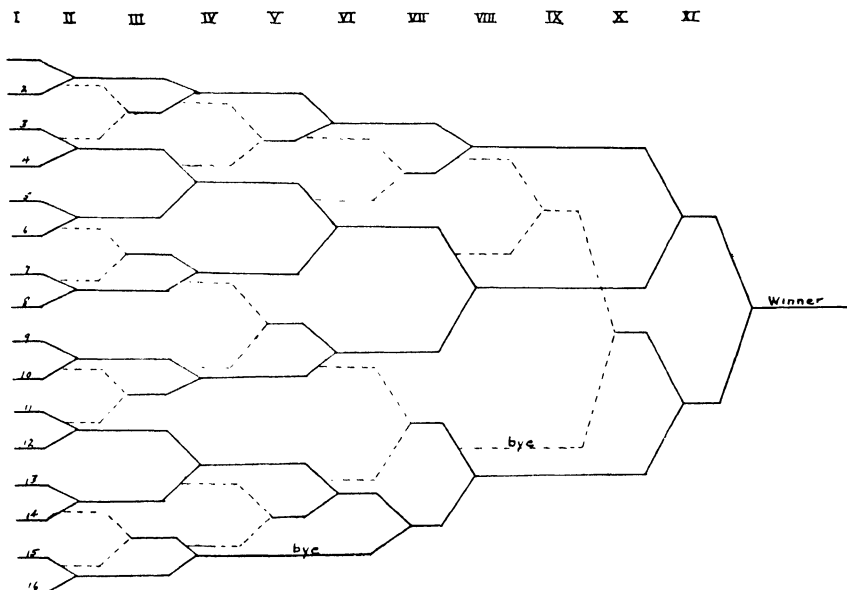


FIG. 62.—Chart for a second-chance tournament with sixteen teams. Dotted lines represent losers.

ment could start the playing with all matches dated so the elimination rounds start on a set date.

A round-robin-league-elimination tournament for twenty-four teams would be charted as in Figure 63, giving each team at least five games to play.

Ladder or Perpetual Tournament.—This form of tournament is desirable when the activity is such that it can be carried on by the players independently without need of scheduling games. Tennis, golf, and archery are the activities for which this type of competition is most commonly used, although variations of the form are coming into prominence for use in team sports under certain conditions. It is entered into with more zest in situations where all the players know each other

fairly well and thus derive considerable fun from the issuing of the challenges as well as from the actual playing.

The straight ladder tournament is what its name implies, a ladder, with all teams placed at the start on the various rungs by some pre-determined method. Teams then challenge the teams placed above them and if they can defeat them they exchange places on the ladder. The challenges continue until a certain date and the team that is able to hold the top rung against all comers by that date is declared the winner of the tournament. Of course there must be rules and they are apt to vary considerably between schools and even between activities within

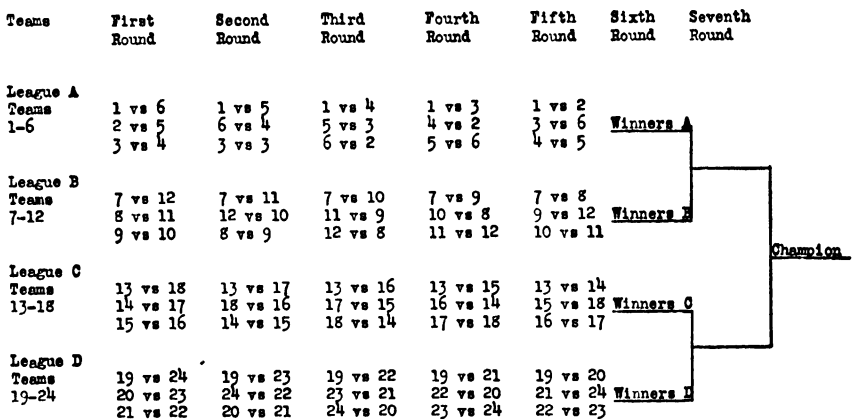


FIG. 63.—Combination round-robin-league-elimination tournament.

the same school. There are no recognized standard rules for this type of tournament but varying rules such as follow exist in different situations.

1. The teams draw by lot for original placing on the ladder, or they are placed according to recognized abilities—comparable to “seed-ing” in an elimination tournament.

2. A team may challenge any team above it on the ladder or only those one or two rungs above it, or only the team directly above it, thus having to work upwards one rung at a time.

3. A team may challenge any other team but once, or twice, or whatever number of times the group determines.

4. If a team is challenged by two teams at once, it must accept the challenge of the team nearer its location on the ladder.

5. A team may not retain its place on the ladder by refusing to accept challenges. It must accept all challenges but it is not required to play more than one match in one day or more than three matches in a week or whatever limitation the ruling board decides upon.

6. A challenge must be accepted but if a team has been challenged by a team below it at the same time it has issued a challenge to a team above it the challenge involving the higher placed teams shall take precedence over the other.

Keeping Score.—The ladder arrangement in Figure 64 shows a group of players placed by lot for the start of a tournament. As soon as the chart is posted challenges may be issued. Whenever a team on a lower round defeats a team above it, the names exchange places. If a corner of a blackboard can be reserved for the chart it is a simple matter to erase the names to be exchanged and correct the chart. A common form of recording is to use a strip of cardboard with slits cut in it so that the cards bearing the names of the various teams or players can be inserted at the different rounds. Colored inserts are effective. Since the slits cut in the cardboard break easily it is advisable to cut them quite wide and space them well apart. Some prefer to run an elastic cord along the sides of the ladder fastened down at the rungs with brass brads. The team name cards are then slipped under these cords and held firmly in place. Gummed stickers may be used, covering over the old team name on each rung as a new name needs to be recorded.

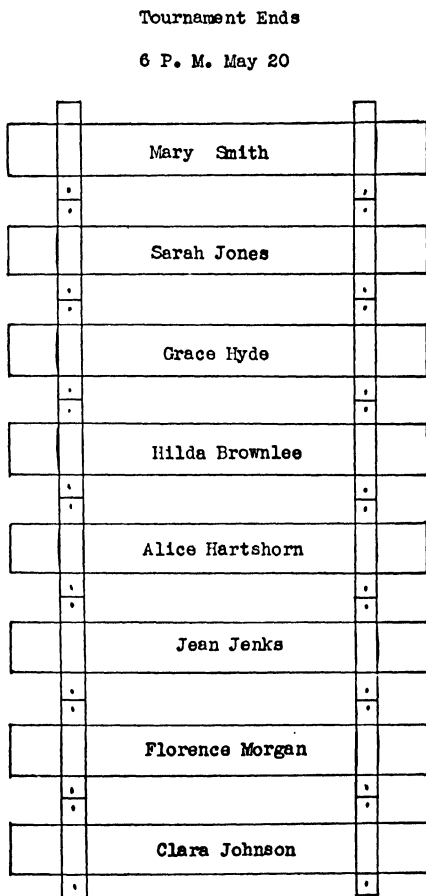


FIG. 64.—Sample ladder tournament chart.

The Pyramid Tournament.—Miss Erna Driftmeier has used in her tournaments in the high school at Creston, Iowa, a variation of

the ladder tournament in the form of a pyramid tournament⁴ which may be explained as follows:

1. Form the pyramid chart with a base with spaces enough for one-half of the teams entering the tournament.
2. Start the tournament by having the teams challenge each other, any team challenging any other team it wishes to play.
3. As each match is won, place the name of the winning team in one of the spaces at the base of the pyramid. As long as a team loses it does not have its name entered on the pyramid.
4. Whenever two teams are placed on the same row of the pyramid they may challenge each other to try out for a higher position, the winner moving up to the next higher level vacating his former space.
5. As fast as spaces on the lowest round are thus vacated those teams that lost at first may now challenge each other to win the vacated place. If no places are vacant, those not yet placed should urge those that are placed to issue challenges for the step above in order to vacate places for them.
6. A team that has won a place on a higher level and stands there all alone is stranded until some other team wins a place on that same level: when a team does move up it may be challenged for a contest for a still higher place.
7. No team on a round below may move up to a higher round until there is a vacant place there.
8. When a team finally wins the peak position it may be challenged for that position by a team on the next to top round provided it has not formerly played the peak team or it has won another match since playing it. This compels the team that reaches the top to defend its position.
9. The playing continues until a specified date and the team whose name is at the peak on that date is declared the winner of the tournament.

This form of a tournament motivates both from below and above. The teams that are busy with challenges are the only ones that stand any chance to win the coveted space at the peak of the pyramid.

Figure 65 shows such an arrangement for ten teams, indicating six different stages in a tournament.

An excellent bulletin board for such a tournament is one with

⁴ Erna Driftmeier, "The Ladder Tournament," *Journal of Health and Physical Education*, October, 1931, p. 36.

pegs or screw-hooks from which are hung cards bearing the names of the teams. A cardboard with slits into which the team cards may be slipped would serve as well.

Another variation of the ladder tournament uses this same chart formation but calls it a triangle for a "king pin tournament," and, by lot, places all teams on the triangle at the start.⁵

The Olympic Tournament.—This form of tournament is used when winners are to be determined in contests lasting from only a few hours to one or two days, such as track, gymnastic and swimming meets

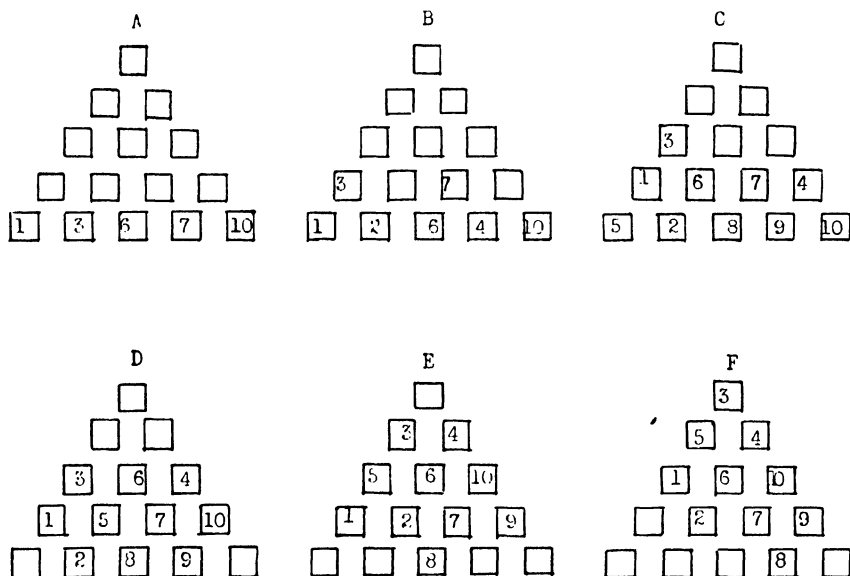


FIG. 65.—Chart for a pyramid tournament.

which are made up of a series of separate events. For each event the winner is usually awarded five points, second place, three points, third, one point and the points of the individual winners are totaled and added together for team scores. The ratings sometimes vary with the use of 5, 4, 3, 2, and 1 or 3, 2 and 1 for points instead of 5, 3 and 1 but whatever rating is used is adhered to for all events for the entire tournament.

The Bridge Type Tournament.—This form of play is well adapted to tennis or any activity where the courts available may be designated as "head court," or No. 1, No. 2, etc., down the line. The

⁵ This form is described in the 1936-1937 issue of *The Athletic Handbook*, No. 115R, of the Spalding Athletic Library, p. 93. Price 25 cents.

teams draw for original placing and the playing begins. As matches are concluded the names on the chart are changed and new pairings designated according to the standard rule that the winners move up one space toward the head court, the winner at head court retaining its place, and the losers remain at the same court for the next round of matches except that the loser at the head court drops back to the low court. The playing continues for a previously determined number of rounds and

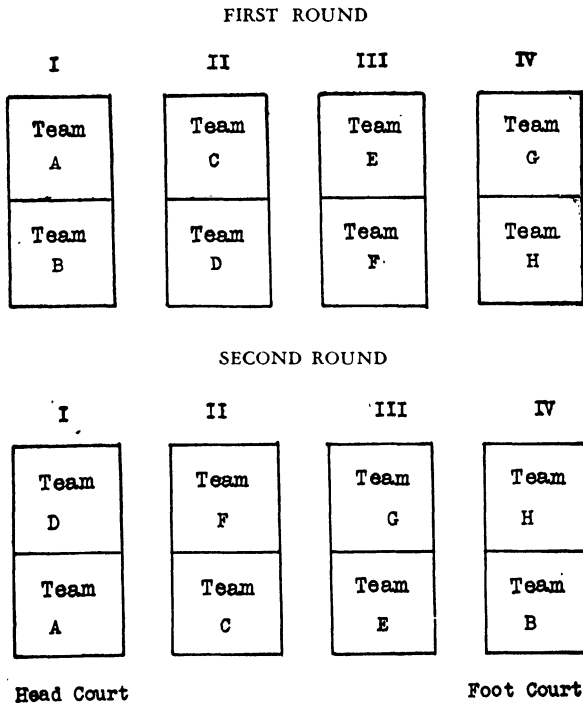


FIG. 66.—Chart for a bridge type tournament of eight teams, showing the placings on the second round after teams A, D, F and G had won in the first round.

at the conclusion the high percentage winner is the tournament champion. Figure 66 represents the first matches of such a tournament. As a result of the first round A, D, F and G won, so D, F and G each move up one court and B the loser at the head court moves down to the foot court No. IV. The team that remains at a court changes sides.

The Tombstone Tournament.—Where the name of this type of tournament originated is not known but it no doubt arose from the

fact that a marker whether it be in terms of time, space or quantity of actions, is set up as a dead line. Whatever its origin, it is a generally accepted term and can be applied to competition in a great variety of activities.

For competition in hiking, the contestants keep a record of their daily hikes over a definite period of time and on the closing day of the tournament total the distances and compare the totals of all contestants. This can easily be adapted to golf, archery, and all such individual sports. It is an excellent means of motivation.

It is used by setting up a marker (a dead line) such as a distance of so many miles to be hiked, so many laps of a pool to be swum, so many arrows to be shot, so many holes of golf to be played, or so many rounds of ammunition to be fired, with the tournament won by that person or team who hiked the set number of miles in the shortest time, or did the laps of the pool in the fewest strokes or shortest total time, or made the highest total score in archery or rifle-shooting or lowest total in golf. It may be used however in the reverse manner by setting a time limit to the hiking and determining who has hiked the farthest in that given time or by setting the number of strokes that may be taken to ascertain who can go the farthest in the pool on that number of strokes, who can jump the farthest in a given number of jumps and so on. In group meets this form of competition is frequently used by teams, with the different members of the teams doing the strokes, runs, jumps, etc., in turn to ascertain the total of their combined abilities.

This tombstone or marker method may be used in shuttle fashion as in shuttle relays for time, in shuttle jumps or throws for matching distance, and in shuttle swims in matching numbers of strokes. Shuttle relays are familiar to all. In the throw, two teams face each other with the team that drew the start lining up on the starting line and the other team lining up on an imaginary line as far removed from the other team as is judged necessary in order to be beyond the distance any member of the opposite team will be able to throw. Number 1 on team X toes the starting line and throws the ball as far as she can towards team Y. An official marks the spot where it strikes and number 1 on Team Y stands on that spot and throws the ball as far as she can throw it back toward Team X. Number 2 on Team X must throw from the spot where the ball of number 1 on Team Y first struck. So the throwing goes on back and forth, Team X trying to throw so far away that Team Y will not be able to get the ball back over the starting line on its last throw and Team Y trying to work its throws so far back of the

starting line that Team X cannot return it on its last throw to a distance too great for Y's last player to cover in order to reach the starting line. If Team Y can reach the line on its last throw it wins, if not, Team X wins.

A shuttle tombstone tournament in swimming may be scored on number of strokes it takes the combined team members to do the length of the pool, each doing one length. There are limitless possibilities for such contests.

Interesting variations to the tombstone competition are the progressing events, in which the team mate starts where the first left off and carries on to at certain point and gives way to the next team member, each advancing rather than returning in shuttle style. The common relay of the track meets is the best known event of this form but the following variations are fun: throw for combined distance, one team member starting where the other stopped, seeing which team can throw the farthest straight ahead in a shot apiece for each team member or seeing which team can throw to a certain distant mark in the fewest throws, team members taking turns throwing, each starting where the last stopped. This form of competition is used in golf when two or more players take turns playing the same ball and in archery flight-shooting. There are countless variations to this form of competition.

The Ringer Tournament.—Ringer competition can be used for all activities in which cumulative scores can be kept. It is most used in golf, archery, rifle marksmanship, and such activities. For example, a group of archers shoots so many arrows each for five days, keeping score for each "end" shot. At the end of the five days each puts a ring around the best score achieved for each end, first, second, third, etc., and then totals the "ringers" for a best possible score of the five days combined. The best scores are then compared to determine who wins the tournament.

A sample score sheet for a golf ringer tournament is shown in Table XVIII in which Player A shot her best score of 4 on hole 1 on the third day, her best on hole 2 on the first day and so on. Player B won the tournament having the lower total score on "ringers."

Golf Tournaments.—The most common forms of golf tournaments are match and medal play. In match play the contestants compete for low score, hole by hole, so that the contest is won by the one who has the lowest score on the majority of holes: in such a contest "four up and six to play" means that the leader has at that point won four more holes than his opponent and there are six holes yet to play.

TABLE XVIII
SCORES IN A GOLF RINGER TOURNAMENT

Player A					Player B				
Hole No.	Sept. 9	Sept. 16	Sept. 23	Sept. 30	Hole No.	Sept. 7	Sept. 10	Sept. 16	Sept. 30
1	5	5	④	6	1	5	6	④	6
2	⑧	4	5	4	2	5	④	4	4
3	④	5	5	4	3	4	5	4	③
4	③	6	5	4	4	4	4	②	3
5	5	5	5	③	5	④	5	5	4
6	④	5	4	5	6	⑤	5	5	5
7	③	3	3	4	7	③	3	3	3
8	6	5	④	5	8	③	5	5	4
9	⑥	7	8	6	9	6	⑤	7	6
Total Ringers <u>34</u>					Total Ringers <u>33</u>				

Wherever one has such a lead that there are not sufficient holes left to win to bring the opponent to a tie or place him in the lead the contest is over. In medal play each contestant plays all holes and his score on all holes is totaled and compared with the total score of his opponent: the lowest total score wins. Match play is usually used on preliminary rounds, or "qualifying" rounds as called in golf, when there is a large number of entrants and it is necessary to eliminate rapidly to get down to the finals. The final rounds are usually medal play.

Variations are match play against par (the accepted perfect score for a hole) or against bogey (the accepted average score for a hole) and team play, with one ball to a team, played in either match or medal form of play.

Archery Tournaments.—The form of archery competition most used in schools for girls and women is the Columbia Round which consists of:

- 24 arrows shot at 50 yards
- 24 arrows shot at 40 yards
- 24 arrows shot at 30 yards
-
- 72 arrows, total.

THE MANAGEMENT OF THE SPORTS PROGRAM

Granted that the sports program should reach the great majority of the students it is the responsibility of the staff to organize it to take care of large numbers in a satisfactory manner so that pleasure, as well as physical and personality benefits, will come from the sports participation. The intramural sports program at the Alexander Hamilton Junior High School of Oakland, California, is conducted as follows:

1. Every inch of the six basketball courts, ten handball courts, and five baseball diamonds is used in every conceivable manner for all kinds of games.

2. Each group selects a manager who keeps her group informed as to what, where, and with whom it plays. These managers meet together to discuss rules, schedules, and sportsmanship.

3. All games are played in round robin tournaments, taking about two weeks to run off each, with every group playing twice against every other group of the same grade.

4. A sample fall schedule is as follows:

Group I plays hitpin baseball, shuttle relay and handball.

Group II plays net ball and bowl club ball.

Group III plays elimination net ball and pin basketball.

Group IV plays kick ball and potato race.

Group V plays nine-court basketball (9th grade) and basketball goal shooting relay.

Group VI plays Liberty batball (grades 7 and 8) and field ball (grade 9).

Group VII plays field ball (grades 7 and 8) and speedball (grade 9).

5. A supply clerk checks the equipment in and out and checks on officials and score reports.⁶

The above is an excellent example of concentrated use of facilities. Too many teachers anticipate defeat, and just because they do not have a desirable "set-up," fail to build an intramural program around the facilities at hand. James A. Garfield once described a university as "Mark Hopkins at one end of a log and a student at the other":⁷ so too, a good intramural program exists wherever there is inspired leadership. A ball, some space to move about in, and a mere handful of

⁶ Arranged from Hilda Clute Kozman, "A Noon Play Program for Junior High School Girls," *Pentathlon*, October, 1929, pp. 8-9, 40-41.

⁷ In a speech at an alumni meeting in New York City, December, 1872 in which he paid tribute to the famous president of Williams College who was outstanding for his personal contact with students.

pupils suffice for a Mark Hopkins type of teacher. To a teacher of vision and organizing ability anything beyond that means increased opportunity.

As soon as large numbers are involved there arises the problem of tournaments, group meets, and mass competition with the accompanying need of high organization such as that of the Des Moines public schools intramural program as follows:

General Plan

1. The program is primarily a student affair, conducted through the student council of the school. The students will be guided by the faculty and are subject to such rules of the local school and the bureau of physical education as are found necessary.

2. The unit of competition is the home room or such other division as is permanent and seems desirable.

3. Student organization will be conducted under direction of the faculty advisor for the student council.

4. Organization and control of actual play on floor and field will be under direction of the physical education staff as arranged by the department chairman of each building, with the principals' advice.

5. Student control shall function through a committee of the council called the Intra-mural Sports Committee and six "Special" committees under its direction. The chairman of each special committee is a member of the Intra-mural Sports Committee.

6. The plan is to be thoroughly explained at the building teachers meeting. The teachers will explain the plan fully in all the home rooms. The Intra-mural Sports Committee will be organized through the student council and will select the activities for competition. The home rooms will select the sports in which they wish to compete and select a manager for each sport who will conduct the affairs of that sport for his or her home room guided by the home room teacher during the home room period and the physical education staff at other times.

7. The physical education staff will guide the selection of activities and the scheduling of games according to facilities of space and equipment. Use should be made of all possibilities so as to keep the maximum number active at the same time. One evening might see soccer games, volley ball, a horse shoe tournament, bat ball, touch football, hand tennis, handball, Newcomb, hop-sotch, a rope-skipping contest and a badge test all going on at once. Every student in school would have an opportunity to participate in some activity he or she enjoys either as player, official or manager. Little nooks and by-spaces should be utilized for individual events and tournaments. Some school may find morning and noon contests advisable at certain times.

8. Management, officiating, care of equipment, keeping of records and filling out reports are to be done by students under faculty guidance.

The physical education teacher must be free to move about from one activity to another. Ability to keep a full program running smoothly will demonstrate teaching skill. The physical education class will be used for most of the necessary instruction, including officiating. The intra-mural program will be used for actual play or competition.

Administration of the Program

When any home room enters in any sport, it will select a manager for that sport, who may not necessarily be a good player. The manager will confer with the home room teacher or one of the teachers of physical education in selecting the team. He will arrange practices if possible. He will get the team to contests at the right time and place. He will have the team elect a captain for each contest, who will direct the team during the competition and make substitutions as advisable.

Each contest will be under the direction of some member of the committee on conduct who gets the team captains and officials together, starts the game on time and takes charge of the game equipment before and after play and during intermissions.

Home room teachers may assist greatly by suggestion and influence at the contest if they wish, but should lead the students to do everything possible for themselves. Teachers of physical education will help conduct the games, guide officials and make suggestions to captains but will not tie themselves down to any one contest. There should be few spectators usually, as available pupils should be organized into sports activity leagues or tournaments. Emphasis is to be on participation by all.

Arrangements can be made with the city papers to publish results and standings if they are sent through proper channels. Detailed instructions for this will be sent out in about two weeks if principals so desire.

Team standings and all matters of record should be completed each day by the students. This will require careful checking by the teachers in charge. It will prevent disputes and misunderstandings.⁸

Group Meets.—Group meets can be conducted by individual participation, totalling the scores of the various members of the team for the team score, by group participation alone, or by a combination of group events and individual events scored by the group. Pure group participation is that in which the combined activity of the team members makes up the event, as in team games, and in such group activities as have been mentioned in group tombstone events; in these matches the individual does not score as an individual. Such meets are highly educative when properly organized and conducted. They motivate the most highly skilled of a group to assist the poor performers

⁸ *Intra-Mural Sports, Bulletin* No. 22, September 25, 1930, pp. 1-3.

and they give all members of the group equal opportunity to count towards the group's final rating.

Excellent organization units for such competition are the home room, the physical education class, the school class (freshmen, sophomore, junior, and senior) and the dormitory with every pupil in the unit chosen counted as a member of the team and expected to contribute his share to the total participation, with his performance counting on the teams' total score.

The Conduct of Mass Competition.—When the groups involved are too large for the employment of the usual methods of competition or scoring, for lack of facilities, officials, or time, there are special methods of meeting the situation, some of which have been discussed under various types of tournaments, such as the league plan of handling round-robin tournaments and the combination round-robin-elimination tournament for large numbers of teams. Mass competition in individual events is conducted by dispensing with the meticulous scoring of time and distances. The following instructions will illustrate the principle.

1. In events for time, have areas marked off and judges to watch each area. The moment the first contestant reaches the finish the judge of the finish gives a signal and all contestants who are within the first area at the moment of that signal are awarded so many points each, all who are in the next area, so many fewer points, all in the third area, still fewer and so on. No record of time need be kept. Each contestant is instructed to observe his place at the moment of the signal and to report it to the judge of his area.

2. A variation of this plan is to give the event so much time and when that time is up to sound the signal and score on position in areas at that moment. The time chosen should be that which would be considered the best record the best contestants can make. It should not be so long that many contestants have crossed the limits of the highest area before the final signal.

3. In events for distance have certain areas marked off and score the contestants who jump, throw, shoot, or swim according to the given area they reach in one jump, throw, shot or stroke. With this plan large groups can jump at once and hold their places for scoring. Not too many balls can be thrown at once however, without a confusing of contestants' efforts but with the need of marking distances removed they can be thrown quickly one after the other as all that is needed for scoring is the official's decision as to the area in which the ball first struck.

The areas chosen should be determined beforehand and with care: a knowledge of the probable abilities of the groups is necessary in

order to maintain interest. The highest score area should be within the approximate reach of the best ten per cent, the lowest area within the reach of the poorest ten per cent and the areas between judiciously spaced to catch the remaining eighty per cent of the contestants in three or four groups of abilities. Class performances preceding the meet will furnish the necessary data for charting the areas.

Club Participation.—Most adult women, many college women, and some high school girls are not interested in competition in athletics but desire, if they do take part in athletics at all, to do so merely for the pleasure of the moment. Sports clubs appeal to these persons. These clubs should be as carefully organized as is the competitive part of the program. Unlike the competition form in an activity which flares up in great enthusiasm for a tournament season of a few weeks and then dies out to give way to other activities, club play and club competition never reach heights of great excitement nor do they die out: they continue in an even tenor throughout the year including in their plans only those who belong to the club.

Since this is the only sort of participation the great mass of people will encounter in adult life it should be stressed more than it now is in the high schools and colleges. Club play should be motivated so that the experience will be so enjoyable that the participants will enter adult life with a desire to prolong the experience. Bicycling, hiking, swimming, skating, skiing, riding, golf, archery, tennis, bowling, dancing in its various forms—all such activities lend themselves admirably to club organization and club participation.

Suggestions for Conducting Competition.—For the lower grades the home room teachers should constitute a board of managers and plan the program of competition, not only for the final tournaments but for all the recess practice hours. Plans should be so made that playing can be in progress throughout all play periods. Each teacher should explain the games, the contests, the rules, and the schedules to her pupils before they go to the play fields.

In the secondary schools the students should serve as assistant managers and in the colleges they should take over a large part of the responsibility.

Running on Schedule.—Tournaments should not be allowed to drag along with dates being constantly set ahead and the schedule thrown off to accommodate certain players. With girls' games there are always some players who are out because of menstrual period and frequently they beg to have dates of games set aside to accommodate their

physical condition. This should not be done for one girl unless the teachers and sports managers are ready to do it for all girls and such a policy of deferring games would ruin the chances of finishing any tournament. Girls' teams should carry enough substitutes to fill in for absentees so that all games can be played on dates and hours scheduled. The schedule once made should be adhered to and all teams not appearing on time with full quota of members ready to play should forfeit their games.

If the first tournaments of each school year are run off according to the posted schedule of dates with no deferments permitted the players will soon learn that they must meet the date as scheduled. This is one way to give pupils training in dependability and in assuming responsibility. Permitting pupils to vacillate in such things contributes to their training towards unworthy citizenship.

Costumes for Intramurals.—Costuming is frequently a difficult problem in intramural programs. As a rule girls dislike very much to dress for sports. Many dislike it so much that they forego all participation in order to escape the bugbear. Most departments make concessions in costuming for the recreational hours in order not to alienate girls before they have experienced the pleasures of participation in sports. Whatever concessions are made they should not interfere with the protective program nor let down the bars of propriety. This means that the players should not be allowed to wear other than sports shoes and that if they do not wear a correct sports costume such as would be appropriate on the tennis court or golf links, they must change to a gymnastic costume. This would rule out the wearing of pajamas and such inappropriate attire in out-of-door situations. For a controlled indoor situation, bathing suits, pajamas—anything—might be considered appropriate for the sake of participation. In the intramural program of Summit, New Jersey, there is a rule that every girl who appears in uniform for the after-school sports must be allowed to play at least one-fourth of the time.⁹ Other schools give points for teams that appear in correct costume.

The Coach.—The coaching of all intramurals would add to the teaching staff a burden too heavy to bear in addition to the regular teaching load of credit work so that most schools use student coaches to assist the teachers. In those colleges with teacher training courses in physical education, intramurals offer a good laboratory for the profes-

⁹ Grace E. Jones, "An Intramural Organization for Girls," *Journal of Health and Physical Education*, October, 1931, p. 29.

sional students. The University of Michigan rules that all teams must have at least one practice with a coach before entering a tournament.¹⁰ By such a plan a schedule of practices might be worked out for all teams to use student coaches for preliminary practices and faculty coaches for final practices before the tournament play begins.

Duties of Managers.—Aside from organizing the program there are the following duties:

1. Well in advance of a meet, post copies of instructions for officials and competitors and during a meet have additional copies at hand for ready reference.

2. Prepare all necessary score sheets.¹¹

3. Put in readiness for each contest all necessary facilities, equipment, and supplies to be included in the meet. If a number of whistles are to be used, they should be of different tones.

4. When competition is intense, make frequent use of substitutes, making special local rules if necessary to replace the official rules on this point. Also instruct the officials to call time frequently whenever the players as a group begin to show undue breathlessness from excitement, and give them authority to shorten the playing periods when nervous excitement persists after rest periods.

5. Arrange for all officials for all games. For preliminary rounds student officials should be used, for finals, only faculty. It gives an added importance to a closing contest of a tournament to invite a faculty member from some other school to be the chief official for that contest.

The Duties of Officials.—As far as possible students should serve as officials, especially in minor capacities. This is excellent opportunity for leadership training and as it is educative the opportunity should be extended to all pupils. It is a good plan to let the older children officiate for the younger.

The specific duties of officials for various sports are published in the rules of each sport which are issued annually in guide books¹² which contain much additional information covering facilities, equipment, coaching techniques, and conduct of tournaments. No leader of girls' sports should attempt to conduct any sport without having at hand the latest copy of the particular guide issued for that sport.

¹⁰ Miriam Wagner, "Intramurals and the Women's Athletic Association," *Research Quarterly of A.P.E.A.*, March, 1931, p. 209.

¹¹ Sample score sheets of a large variety as needed in track and field events are shown in the 1936-37 issue of *The Athletic Handbook*, No. 115R, pp. 140-43.

¹² The official rules for all sports for women are published for the National Section on Women's Athletics of the American Association for Health, Physical Education and Recreation (formerly the American Physical Education Association), for 25 cents a copy, by A. S. Barnes and Company, Publishers, 67 West 44 Street, New York City.

The Keeping of Records.—From the John Marshall High School of Los Angeles comes the following advice concerning the keeping of records and bulletin board announcements:

The following forms are in printed form:

1. Result of game card.
2. Weekly report as to standings of the team.
3. Tournament elimination plans.
4. Bulletin board elimination plans.

The division managers with the cooperation of the intramural director keep a daily check upon all games played. The results are issued weekly. Elimination plans are kept up-to-date. The director is wholly responsible for the keeping of all records either for the bulletin board or office use. Record keeping must be accurate and done systematically.

Publicity

Publicity is given through two methods:

1. Through the department bulletin board.
2. Through announcements by the daily bulletin from the administration office.

Use of publicity:

1. Games are advertised as to their opening on the bulletin board.
2. Standing of teams on printed forms are posted weekly.
3. Notices of games to be played daily are posted on bulletin board.
4. Advance schedules are continuously posted.
5. Record performances, as well as past team champions, are recorded on bulletin board.
6. Team or individual winners are given through the daily bulletin.
7. The daily bulletin gives all urged and needed information.
8. Rules in modified form are posted on bulletin board.¹³

Constant and regular announcement of tournament news, by means of colorful and attractive bulletins, makes a strong appeal, adding materially to the chances of success of a sports program.

¹³ J. B. Buehler, "Noon-Hour Intramural Organization," *Journal of Health and Physical Education*, October, 1932, p. 35.

CHAPTER XVIII
AWARDS AND POINT SYSTEMS

"O well done! I commend your pains."

—MACBETH

The Philosophy of Awards.—Physical educators are not the only school teachers involved in the question of awards. Educators along all lines are concerned. The present trend shows a progress toward the Greek ideal. Even parents are coming to realize that it is poor training to motivate children to favorable action by the hope of reward other than the spiritual recompense that comes from the satisfaction of having acted favorably. The child cannot fully experience such spiritual satisfactions if its attention to these abstract qualities is deflected by material rewards. This branch of its education in the home should be augmented by its education in the school. Physical education can make effective contributions towards this training of the child if, forsaking the Roman ideals and the splendors of its gifts, it will follow the Greek ideal in its symbolism of the wild olive wreath.

The school should pay tribute to the approaching adulthood of its children by habituating them only to such prizes and awards as are mere citations in recognition of merit. It should teach students to look upon the satisfactions of the activity itself as sufficient award. This approaches the actual life situation in which a life well lived is its own reward and those things undertaken in the hope of reward and recognition prove at last but empty pursuits. The child should come to realize early that the world recognizes as the greatest awards mere citations accompanied by the bestowal of symbols of little intrinsic value such as the Iron Cross, the Congressional Medal, and the red ribbon of the Legion of Honor, not to mention the still greater honor—silent recognition in the hearts of men. Such lessons are easily taught for children instinctively derive much happiness from symbolic recognition of efforts. The desire for material awards comes to them only from adult suggestion.

Incentives are necessary to assure the formation of habits of endeavor in children, and they are still necessary for adults who have

failed to "grow up" but the "necessity for the employment of concrete rewards diminishes with the increase in the innate power of an individual to respond to motives, purposes, and ideals."¹

Standards for Awards.—Since a ceremony of recognition can serve as an award in itself, it is foolhardy for a school to commit itself to any form of recognition representing an expenditure of money. Also it should not solicit gifts for awards. At a recent County Play Day the award committee retired to a nearby clover patch and prepared a crown of clover blossoms while the points committee figured up the final scores. Then at the closing ceremonies the captain of the high scoring team of the day was crowned by the superintendent of the hostess school who was as much impressed as were the girls by the dignified simplicity and beauty of the award ceremony.

The Women's Division of the National Amateur Athletic Federation endorses the following statement in regard to awards for junior high school age:

A choice of incentives is one of motives. The thoughtful leader will appeal to the most worthy motives, hence use the most worthy incentives, which will reach her group of girls. There can be no doubt that the very best, the most potent, and the most enduring incentive, where it exists, is spontaneous joy in the play—an incentive to be developed and relied upon as constantly and as completely as conditions make possible. If devised incentives must be brought in, they should be as simple and as little mechanized as may be—as far away from the elaborate trophies and point systems of the college as possible.

The incentive may be honorable mention in the school assembly or the school paper, or inscription of the name upon a class shield or banner. Wherever possible, it should be the name of the team and not the name of the individual. It may be a chevron or a stripe to be worn on the athletic uniform. It must always be symbolic in value, and, if in character it can be distinctive of the junior high school, it will prove as useful as distinctive activities in preventing that undesirable imitation of college and university which has crept down through the senior high school to the junior high school in so many of the school's social activities.

If the conditions for participation are made attractive and if the tradition of games and sports for girls is fostered by home, school and community, it should not be necessary to go into elaborately planned systems of awards. The play instinct at this age is keener than it is in later adolescence and usually needs only to be provided for.²

¹ Carl W. Aretz, "The Philosophy of Awards," *Mind and Body*, January, 1936. p. 235.

² Mabel Cummings, *Program of Athletics for Girls of Junior High School Age*, Women's Division of National Amateur Athletic Federation, New York, 1926, pp. 4-5.

STANDARDS FOR EARNING AWARDS

Awards as commonly conferred in physical education are either achievement or progress awards and may be earned on either a competitive or non-competitive basis. Participation awards would fall under both headings. They may be classed as follows:

1. Achievement awards**a. Competitive**

An award to the individual or group that wins the highest score, next highest score, etc., in physical education class work or the most points, next most, etc., in a meet, or the finals in a tournament, and so on.

b. Non-Competitive

Awards to all individuals or groups that achieve certain previously announced levels of attainment in any activity or combinations of activities as set down in the rules of the award.

2. Progress awards**a. Competitive**

An award to the individual or group that shows the greatest progress or next greatest progress, etc., in achievement from its starting point.

b. Non-Competitive

Awards to all individuals or groups that attain a certain previously announced amount of progress in achievement.

Progress awards require that achievement tests be given at the opening of the school year to rate all contestants and again at the close of the year with the use of a graded scale of awards, taking into consideration the amount of improvement regardless of a student's starting and finishing point. Such awards should be used more commonly than they now are since they offer incentives for improvement to students who achieve at low levels.

Competitive and Non-Competitive Awards.—It is gradually becoming recognized in the educational world that awards should be offered on a non-competitive basis, i.e., all who meet certain requirements win the recognition regardless of numbers winning—the winning by one person is not contingent upon the failing of all others. Such a plan removes the unsocial necessity of triumphing over others to win the coveted recognition: it involves only a triumph over one's self. Awards on this basis are given by many schools and organizations.

Individual and Group Awards.—Many educators look with disfavor upon individual awards while others are willing to consider

them only under non-competitive standards. There is no doubt that they do in their competitive form engender unsocial attitudes and foster unwarranted feelings of superiority in those who win and unwarranted feelings of inferiority in those who lose, especially in those who made a supreme effort to win and yet lost. The Women's Division of the National Amateur Athletic Federation, in discussing awards at college and adult level, says: "This does not imply the desirability of an individual point system"³ and, "it is desirable that the individual point system be simplified as much as possible and gradually dropped."⁴

Group awards, however, are openly recommended by many educators. The State Department of Education of Massachusetts publicly takes a stand for such a preference.⁵ To carry the social philosophy of awards to their logical conclusion, group awards, also, should be non-competitive: the standards should be such that no one group may "lord it" over others as being superior but, instead, all groups that attain a certain excellence should receive the cherished recognition.

Rules for Setting Standards.—Standards for attaining recognition for achievement should be such that:

1. It is not too difficult, yet not too easy, of accomplishment.
2. It is such that a fair percentage of the students or groups may attain it each year.
3. It requires "all-round" participation rather than excellence in just one thing to attain it.
4. Winning is not the sole criterion of excellence.
5. It is not involved in complicated record keeping.
6. Group rather than individual endeavor is rewarded.

Qualifications for Awards.—Rarely are individual athletic awards made on a basis of athletic skill alone. Sportsmanship is almost always made a factor for consideration as is, also, maintenance of certain health and scholarship standards. On the other hand, however, group awards are apt to be given on a basis of achievement alone. Frequently the achievement required is merely that of winning: this is educationally unsound. In numerous instances, though, awards depend upon the students' capacity for versatility in extra-curricular activities as well as in

³ *A Study of Women's Athletic Associations in Colleges and Universities*, Women's Division, National Amateur Athletic Federation, 303 West 42nd Street, New York, April 1, 1936, p. 5.

⁴ *Ibid.*, p. 6.

⁵ Commonwealth of Massachusetts, *A Course of Study In Physical Education for Junior and Senior High School Girls*, Bulletin of Department of Education, 6, Whole Number, 284, Boston, 1935, p. 12.

scholarship and physical activities. When such awards are, in addition, dependent upon clean living and fine social adjustment, as is evidenced by meeting strict health, moral, and sportsmanship standards, they become symbols of the very finest in manhood and womanhood—an all-round excellence that should make them recognized as the most prized awards a school can give.

True as it is that athletic awards in the educational field are rarely made on a basis of athletic skill alone, equally true is the statement that that part of the qualifications for awards which is based on athletic achievement is rarely based on skill in one activity alone. At least this is true of awards for girls. It is not at all unusual to hear of high school boys and college men who make their football, basketball, or track letters but most awards for younger boys and all girls and women symbolize all-round activity. The Women's Division of the National Amateur Athletic Federation goes so far as to suggest that the matter of diversity of participation be controlled through offering a rich program and "by so scaling points for activities and achievement that it becomes impossible for a student to earn the requisite number of points for an award within only one or two activities."⁶

A special committee of the American Physical Education Association appointed to study the subject of athletics for girls and women lists the following types of qualifications that are appropriate for awards:

1. for skill in one activity
2. for skill in a variety of activities (versatility)
3. for ability plus certain desirable behavior traits—good sportsmanship
4. for ability plus participation in games and meets or tournaments
5. for participation plus good sportsmanship plus leadership
6. for participation plus good sportsmanship and leadership and service to the institution
7. for improvement in skill
8. for improvement in posture
9. for good health and physical fitness
10. for a combination of 7, 8 and 9
11. scholarships should enter into the picture in some place.⁷

⁶ Florence A. Somers, and Committee, *A Study of Girls' Athletic Associations in the Secondary School—Objectives, Organization, Program*, Women's Division of the National Amateur Athletic Federation, New York, May, 1934, p. 9.

⁷ Committee Report, "Athletics for Girls and Women," *Research Quarterly*, of A.P.E.A., October, 1932, p. 100.

Rules for Awards.—The fundamental rules for awards may be summed up as follows:

1. Use awards, firstly, to stimulate participation and, secondly, to motivate better playing.
2. Use for awards only such things as have in themselves no material value.
3. Set the qualifications within the limits of possible attainment by all who earnestly attempt to meet them.
4. Offer some awards of such nature that the winning is possible to more than one, or a select few, so that the winning by one person or one group does not diminish the chances of others of winning.
5. Make the qualifications such that the meeting of them contributes to finer living.
6. Announce all awards before the activity begins, clearly defining all qualifications determined upon for their winning.
7. Be prompt in announcing the winners and in conferring the awards.
8. Make the conferring of the awards an occasion of impressive ceremony.

AWARDS IN USE

The Greek ideal rules out as prizes all gifts from commercial concerns which are so frequently not only accepted but sought by school organizations. It also rules out all purchase of awards that have intrinsic value. In the field of girls' physical education, however, athletic awards are for the most part nothing more than felt letters for individual awards and wall plaques for group awards. There are a few schools and colleges that give sweaters and like prizes of some intrinsic value although some of these merely confer the privilege of owning the award with the financial burden resting entirely upon the recipient of the privilege. The present trend is not only away from such awards and privileges but even away from felt letters and emblems, substituting a mere mention or listing of winners so that the ceremony of recognition itself becomes the award. One college, the State University of Ohio at Columbus, has gone even beyond this and keeps no records of winners, no counting up of winnings towards a final high score, no offering of final recognitions.

Elementary School Awards.—The most widely known award for the lower grades is the certificate of the National Recreation Asso-

ciation issued to all children who pass the following levels of the National Physical Achievement Standards as follows:

Primary certificate for ages 8 and 9

Elementary certificate for ages 10 and 11

Intermediate certificate for ages 12 and 13

Junior certificate for ages 14 and 15

These certificates cost three cents each and may be procured directly from the association. The tests leading to the award are referred to in the chapter on tests. A sample award is shown in Figure 67.

National Physical Achievement Standards

for GIRLS

is awarded the **PRIMARY CERTIFICATE**

for having successfully passed the requirements

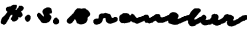
for eight and nine year old girls.

School

City

Date

Sponsor



Secretary, National Recreation Association

FIG. 67.—Sample certificate awarded to those who pass the accepted achievement standards. (Reproduced by courtesy of the National Recreation Association.)

High School Individual Awards.—The following examples of the awards conferred by the high schools of different cities are indicative of the situation in the high school field. Figures 68 to 71 show different types of awards in common use for both individuals and groups. Figure 72 shows typical state awards. A unique award is used in Clinton, Iowa—that of hanging in the hall or trophy room the photograph of all winning groups.⁸ Oliver High School of Pittsburgh has

⁸ Dorothy Frances Hawkins, "Practical Elementary School Program of Physical Education in Operation," *Journal of Health and Physical Education*, September, 1935, p. 27.

two unusual awards which it confers upon the two girls who, having previously earned the leader's club emblem, are voted as outstanding girls in service and womanliness. These awards are medals, one in bronze and one in silver, furnished by the Board of Education.⁹

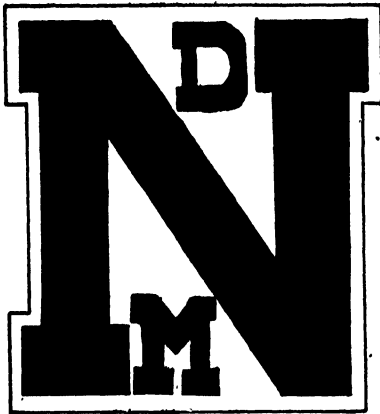


FIG. 68.—Individual awards for girls' athletics, Des Moines, Iowa. Numerals, five by eight inches; block letters, five by five inches. All awards are in crab-apple pink letters on Kelly-green background inspired by the spring crab-apple blossoms abundant in that locality. (Reproduced by courtesy of Mrs. Theresa Anderson, North High School.)

College Awards.—Numerals, chevrons, college letters, pins, sweaters, pennants, and seals make up the individual awards in most common use for women in colleges while wall plaques, statuettes, banners, and cups comprise the group awards.

⁹ Evelyn Spindler, letter to author, February 6, 1936.

<p>Des Moines Public Schools Bureau of Physical Education</p> <p>Certificate of Achievement</p>	
B	<p>having passed the achievement tests is now qualified as an</p> <p>ADVANCED SWIMMER</p>
	<p>_____ Instructor</p> <p><i>Louis E. Hutto</i></p>
<p>Date _____</p>	<p>_____ Supervisor Physical Education</p>

FIG. 69.—Sample individual award, a card two and one-half inches by three and one-half inches in size. (Reproduced by courtesy of Mr. Louis E. Hutto.)

<p>Summit High School Athletic Council</p>	
<p><i>This</i> is to Certify that</p>	
<p>_____ Has Creditably Served Summit High School in the</p>	
<p>_____ and is Hereby Awarded a Letter</p>	
<p>_____ President</p>	<p>_____ Principal</p>
<p>_____ Coach</p>	<p>_____ Manager</p>

FIG. 70.—Individual award certificate. (Reproduced by courtesy of Miss Grace Jones, Director of the Department of Physical Education for Girls, Summit, New Jersey.)



BANNERS AND PLAQUES HUNG IN HOMEROOMS.



CLASS CUPS IN TROPHY CASE



FIG. 71.—Group awards for high school girls used at Summit, New Jersey. (Courtesy of Miss Grace Jones, Department of Physical Education.)

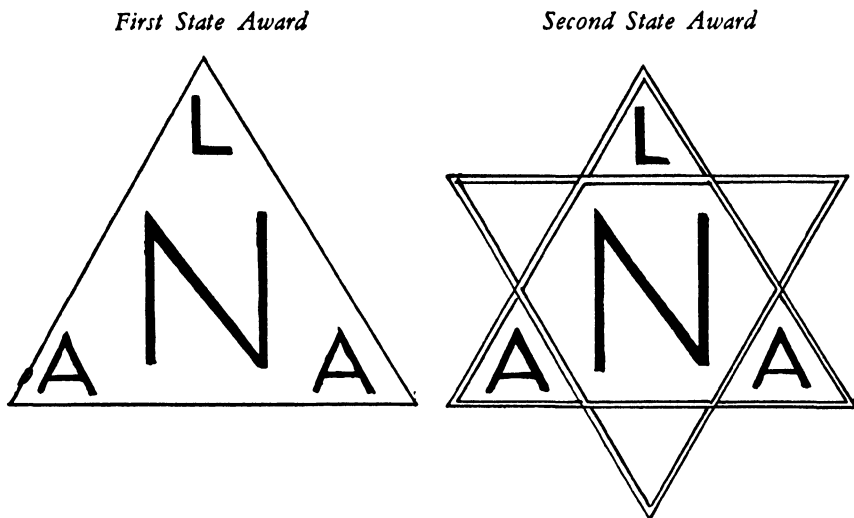


FIG. 72.—Awards used by the Nebraska State League of High School Girls' Athletic Associations. The emblems are of scarlet chenille with white letters. The side of the equilateral triangle measures five and one-half inches.

POINT SYSTEMS

Recommendations.—The Women's Division of the National Amateur Athletic Federation endorses the following statement in regard to point systems:

Many high school athletic associations sponsor a point system, which provides a basis for the award of honors. Points are awarded for participation and achievement in various types of activities, for service and also occasionally for personal qualifications. There exist a number of valid arguments against the point basis of making awards, but in general, it may be said that until some better (and similarly objective) scheme for the evaluation of achievement and participation is evolved and found satisfactory, the point system appears to be the most suitable basis for the making of awards in the high school.¹⁰

How to Make a Point Chart.—Suggestions for the making of a point chart may be briefly summarized as follows:

1. Keep the scale of total points small, 100 rather than 1,000.
2. Limit the most difficult achievement to 10 points.
3. In determining point limits consider time, effort, availability.
4. Award points on an equitable basis for achievement and participation.

¹⁰ Somers and Committee, *op. cit.*, pp. 5-6.

5. Add small additions for winning and superior performances.
6. Provide opportunity for all to attain points.
7. Stress participation rather than skill.¹¹

METHODS OF KEEPING RECORDS

The following instructions for keeping records are given all high school teachers of physical education in Des Moines:

The points are to be approved and officially recorded at certain intervals or at least once each semester by an awards committee consisting of pupils and the physical education teachers. Day by day detailed accounting of points is to be eliminated. Reports are to be made by the pupils and certified to by the pupil-leaders or teachers involved at given periods or toward the end of the semester. They should state the various achievements and points earned in a clear form showing all summations. These are to be recorded for all active members. Data on points for individual inactive members is not to be kept especially unless it would be kept any way as part of the regular class records. In case an inactive member applies to become active she may count only those points from previous achievements in which the achievement was actually on record by virtue of being part of the regular class records. Proofs of past achievement by affirmation of witnesses will not be accepted in such a case.¹²

The Women's Division of N. A. A. F. suggests the use of the Cleveland plan of a stamp system which seems more effective and labor-saving than most methods commonly used.¹³

It is a common thing to hear teachers complain about the burden of keeping records for intramural point systems. After all, the problem for each teacher is to decide what she wants for her pupils: that settled the question arises as to how she can best procure for them that which she wants them to get out of athletic participation. If the answer to this question involves the labor of keeping records surely she will feel that the end justifies the labor. In that event, she will organize it as effectively as possible and will go about it with a good will. Grumbling about this task does not ease the labor. If the results justify it, there is no occasion for complaints. If they do not justify it, it is ridiculous not to discard the whole thing. For those who are interested in keeping records, Figure 73 shows a good form to use. The various State Leagues have, also, formulated excellent devices for this work.

¹¹ Arranged from Somers and Committee, *op. cit.*, p. 8.

¹² *Bulletin*, Board of Education, February 14, 1933.

¹³ The plan is given in full in Somers and Committee, *loc. cit.*

GIRLS' ATHLETIC ASSOCIATION RECORDS

MINNEAPOLIS PUBLIC SCHOOLS

Name _____								Home Room _____
Year								
Semester								
Badminton								
Basket Ball								
Deck Tennis								
Diamond Ball								
Field Hockey								
Golf								
Hiking								
Skating								
Speedball								
Soccer								
Swimming								
Tennis								
Volley Ball								

Numerals Awarded _____ School Letter Awarded _____ City-wide Emblem Awarded _____

10PEB (5M 7-32 V)

FIG. 73.—Form for Girls' Athletic Association records. White cardboard four by six inches in size. (Reproduced by courtesy of Miss Ermina Tucker, Assistant Supervisor of Physical Education, Public Schools, Minneapolis.)

AWARD CEREMONIES

Award ceremonies should be made as impressive as possible. They can be highly educational. When the award is of such material value that it is desirable in itself, and not for what it stands, the character-forming values of the activities leading to the award may easily be lost. Who has been present at the ceremonies of the World Olympics and not thrilled to the deep feelings of a world brotherhood of man engendered by them? Engendered by the ceremonies—not by the athletic events themselves!

Award ceremonies if carefully planned may make occasions so momentous that they will stand out in the child's memory for years to come as moments of spiritual uplift and resolutions for good. But they do not become an abiding experience when the award attracts such attention to itself that the deeper significance of the activity is lost. Children—and grown-ups too—enjoy ceremony more than awards and, no matter how trivial the award, it is of great emotional value to the child if the ceremony is well planned. Even the very young child is quick to sense that it is the recognition of a thing well done that is after all the real award and that the material thing is merely its symbol.

The State Board of Education of Alabama recommends to its high schools that awards be conferred in an assembly meeting before the entire student body using the following presentation form:

The.....High School bestows on you its emblem because in health and a perfect body, in scholarship, in sportsmanship, in the spirit of service and in athletics, you typify what the school and the state desires. May you wear it ever to the honor of yourself and to the school and the State.¹⁴

This presentation is designed to follow the earning of an award by specific attainments in the fields of health, sportsmanship, scholarship, gymnastics and rhythmic work, athletics, and extracurricular activities. The State Department suggests that immediately following the ceremony the names of the award winners be given publicity in the school news and that the winners be assigned "places of responsibility in the life of the school" and that their spirit of service be turned to practical use.¹⁵

¹⁴ State of Alabama, Department of Physical and Health Education, *Suggested Standards For Awarding Letters*, State Board of Education, Birmingham, 1926, p. 10.

¹⁵ *Ibid.*

CHAPTER XIX

THE CONDUCT OF NON-COMPETITIVE ACTIVITIES

"If you would cultivate the intelligence of your pupil, cultivate the power which is to govern. Give his body continual exercise; make him robust and sound in order to make him wise and reasonable: let him work and move about and run and shout and be continually in motion."

—ROUSSEAU

TOO FREQUENTLY America's youth leaves the public schools untrained in the art of using his body with ease and efficiency, untutored in the technique of getting the most possible out of life with his own particular physical equipment, unskilled in the mastery of recreational physical activities; yet much of the enjoyment that comes from a life fully lived comes from the mastery of these proficiencies. As Rogers of Boston University says: "Skills in the motor field are to be compared with information in the mental field. Some motor skills, like walking, running, dodging and swimming are necessary to every pupil, as are such groups of information as abilities to read, write, and figure."¹ Beyond these fundamentals all should be led to a desire to excel in some skills as an outlet for emotional expression. McCloy of Iowa speaks of this need as follows:

Man needs an adequate expression for the release of his emotions. It is not everyone who can make love as Browning did with poetry. Few can express wild dreams with the violin as can Kreisler. Few . . . can express themselves with the brush, painting what seems real in an unreal world that all may see. And yet the soul craves such expression in varying amounts, fortunately for those of us who are less talented. It is well for the physical educator to remember that one of the most fundamental urges, so far as expression is concerned, goes back to that adequate physical expression such as found an outlet in our savage ancestors in performance well done. When we hit a golf ball and it goes and goes, straight down the middle of the fairway, and we have not pressed or tied up, there is a deep spiritual satisfaction that pervades the entire being. Most of us would prefer to meet a baseball

¹ Frederick Rand Rogers, *Educational Objectives of Physical Education*, A. S. Barnes and Company, New York, 1929, p. 50.

squarely and have it almost lift the second baseman off his feet—and be out—than to stub a ball clumsily down the first base line and reach first base safely because the pitcher fell over his feet in attempting to field the ball. The first brought the satisfaction of accomplishment, while the second brought the annoyance of failure. I should like to emphasize the need of teaching skills so adequately and calling attention to this expressional aspect of the skills in such a manner that the individual plays, not just with his muscles, but with his mind, his emotions, and every aspect of his being—and finds it good.²

The school should consciously strive to bestow physical excellence and competence for wise use of leisure upon each individual youth of the land. It should not be content merely to expose youth, *en masse*, to a recreational sports program. Many schools do not attempt even that, feeling their duty fulfilled when they support a school team, leaving the untrained majority to gain what physical education they can from cheering on the side lines.

It is only through active participation in physical activity that children receive many of the most valuable accompaniments of an education. The quality and quantity of these accompaniments depend, however, upon the type and character of the activity and these in turn depend largely upon the scope and manner of its presentation within the school. Since physical education plays a major part in the school activities program, it is important that it be carefully planned and conducted according to the best methods of educational procedure.

The conduct of these activities is too frequently left to chance under the care of teachers, untrained in the art of teaching motor skills and unversed in an appreciation of the place of motor education in the complete education of the child. To many teachers of physical activity and to many school administrators, as well, a class in basketball merely means a class period spent in a basketball contest calling for two teams, a ball, a basketball court, and someone (just anyone) with a whistle and some knowledge of the rules of the game. Such persons are not *teachers*, they are merely squad leaders glorified through a salary check and the rating of teacher. A real teacher *teaches*. She understands thoroughly the difference between an instructional class period in basketball and an after-school period of recreational basketball; she understands the comparative values of the two and their differences in leadership approach and techniques. In the class period she instructs in the fundamental skills, principles and rules of the game, seeing that every

² C. H. McCloy, "A New Deal in Physical Education," *Supplement to Research Quarterly* of A.P.E.A., December, 1934, pp. 88-89.

member of the class engages in the activities of the period; she tests all frequently to check on their progress and gives each a final appraisal at the end of the term. In the recreational hour when basketball becomes a competitive sport activity, putting into practice the instruction of the class period, the teacher becomes a coach, an official, an enforcer of rules; here citizenship training looms large displacing the all-important motor skills instruction of the class period.

The conduct of the competitive form of activities has been discussed in a previous chapter. We will now take up the conduct of non-competitive activities, considering as non-competitive all forms of activities such as are carried on in class instructional periods.

THE PSYCHOLOGY OF LEARNING MOTOR SKILLS

Motor skills are not effectively acquired—most certainly not by the great majority of students—unless taught as instructional subjects: recreational presentation alone is not sufficient. Even in instructional periods, however, motor skills are not acquired effectively unless taught scientifically. Correct teaching procedures are as important in the field of motor skills as in the field of mental skills.

There is a distinct psychology of learning in the field of physical education. Such questions as these arise: (1) theory or practice first? (2) how much of one before the other? (3) form first without thought of speed? (4) must each discover his own best way to learn? (5) part or whole method? (6) how frequently should one practice? and (7) for how long at a time?

The Part or Whole Method.—It is quite generally agreed by psychologists that things should be learned by the whole method. The activity to be learned, however, should be divided into units of work such as may be recognized as "wholes"; for example, in a class of golf, the drive, including the addressing of the ball, the back swing, the downward swing and the follow-through would be one "whole," not dividing that into its four parts and practicing each by itself unrelated to the other three. A "whole" would be any set of movements which in the natural performance of the completed activity are united and flow into each other without a break.

The Factor of Time.—Time is an important element in learning. There must be time to absorb into the whole person the movements made and the new knowledge acquired; in other words there must be

time for the experience in the new actions to "set." Sharman³ says that "learning takes place better if the practice periods are comparatively short and are spaced out over a long period of time. If, for instance, six hours were to be spent in practicing a motor skill, it would be more effective to practice twenty minutes a day for eighteen days than to practice one hour a day for each of six days." He says that some experimenters advocate for beginners two brief practice periods per day, soon changing to once a day and later changing to once in every two or three days.

Theory of Interest Versus Effort.—In the field of physical education the advocates of the "interest" method as opposed to the "effort" method maintain that there is no place in education for the formalized discipline of former years. They overlook the fact that effort can of itself arouse interest as is evidenced by the things we value most in life. Although we realize that effort must be accompanied by interest to procure the readiest results we also are obliged to admit that interest must beget effort in order to be effective. Surely the two are inseparable, yet many "modernists," having aroused interest, fail to follow through to produce effort and then wonder why their teaching has missed the mark, or content with the mere fact of having aroused interest, are blissfully unaware of the fact that education has not actually resulted.

The extremist in this movement would have the child do nothing in which he is not interested forgetting that, whether the child is or is not interested in body building, he is nevertheless growing and developing. Deprived by the modern economic system of his birthright of proper growth environment and motivation he must be given correct body-building exercise at school: this important part of his physical education must not be sacrificed on the altar of psychological disputes as to method. It is the teacher's responsibility to arouse the child's interest in body-building education but, even when she fails to procure interest, effort in that direction must be enforced for the child's own good. Physically soft living such as we now find in the homes of today must be counterbalanced in the schools by physically robust living whether the child is interested or not. A *good* teacher can, however, arouse interest so that this can be accomplished through physical effort in the physical education program.

³ Jackson R. Sharman, *Introduction to Physical Education*, A. S. Barnes and Company, New York, 1934, p. 182.

When large numbers must be handled there must be order before there can be attention and to maintain order there must be some kind of discipline: also when skills must be taught to large numbers there must be a certain formality in the presentation of patterns of movement. Under such circumstances we cannot escape the need of a certain amount of formal education and of discipline.

Interest not followed by effort, and effort unaccompanied by interest—both fall short of the desired goal in educating in the motor as well as in the mental field. It is the teacher's function to arouse the pupil's interest in the motor skills to be learned and then to lead him into correct ways to expend effort towards the acquisition of these skills.

Mr. Carl Schrader, formerly State Director of Physical Education for Massachusetts, says:

Here and there voices are beginning to be heard, as to how far it is safe to let education be governed wholly by the *interest* idea, and also how justified we are in casting *discipline* into the discard. . . .

Likes and dislikes make up a balance that keeps us alert. Learning to dislike certain things or situations that are not for the best even though we like them, and learning to like things and situations that are for the best even though we do not like them, must still be accepted as a safe road to a full and intelligent life. . . .

[We surely need] to take cognizance of the warning not to sacrifice everything to whimsical fads. There seems to be a fear—or might it be inability?—on the part of many of our teachers to be caught *teaching*. All they want to do, or possibly know how to do, is to set up *situations* and then merely launch the children in that free-for-all spirit of "try and get it." . . .

Yes, there is a new method of teaching, but the emphasis must still be on teaching—a kind of teaching that will lead to liking a thing that will still keep alive respect for order and righteous authority. After all, we claim that technical achievement is not our chief objective, but a medium for other worthwhile traits of life; that we are interested in education in play and athletics, rather than in play and athletics in education. Well, these heralded outcomes do not "just happen." Teaching is still the vehicle for their achievement.⁴

TEACHING MOTOR SKILLS

Children do not acquire skill in physical activity merely by coming under the tutelage of a teacher who is interested in attitudes and appreciations. The teacher must be able to *teach skills*. As McCloy says:

⁴ Carl L. Schrader, *Journal of Health and Physical Education*, October, 1931, Editorial.

In the public schools the elementary school pupil has been permitted to suffer from six to eight years under the ministrations of a classroom teacher who knew nothing of physical education, who knew not how to teach the skills, and who more often than not taught activities in such a way as to produce habits of action and motor skills neurologically worse in their way than adding on the fingers would be in arithmetic. He is led to learn something the wrong way and then to add something else wrong on top of that to act as a partial "corrective." . . . I wish to suggest the possibility that this type of teacher is a neurological crime, that it creates what might be called "brain detours," establishing neurone habits that go from here to there—by way of the Orient. I should like to suggest the probability that this type of educational process produces slower response times to critical situations and results in annoyances and wastes of nervous energy not at all in harmony with the demands of today. I feel, therefore, that it is high time that we turn to better ways of learning. We see on the horizon attempts to discover the "fundamentals" of physical skills. In several places we find individuals analyzing skills into their mechanical elements, experimenting with the teaching process, endeavoring to find the best presentation and the best method of combining elements in order to meet the present demands and most quickly bring insight and mastery.⁵

Most people want to appear to be physically efficient; most people are interested in actually becoming proficient after they have seen skilled performances; most people will put forth effort to learn skills if their interest has been aroused; and most people enjoy an activity and will pursue it if they have skill in the activity. Once pupils realize that the teacher really knows how to teach skills so that effective results will be produced, they will work enthusiastically.

Methods.—Burton⁶ of Chicago University says that motor skills are best taught according to the following plan and in the order given: (1) setting the model, (2) imitating the model, (3) analysis and criticism of pupil's attempts, and (4) drill.

Physiological Considerations of Method.—There are certain physiological considerations that should be given attention such as the following:

1. Graduated warming-up exercises should precede vigorous exercise. (Athletic coaches seem to sense this physiological need more than do the general run of physical education teachers.)

⁵ McCloy, *op. cit.*, p. 65.

⁶ W. H. Burton, "Some Principles of Method and Their Application to Physical Education," *American Physical Education Review*, June, 1927, p. 413.

2. Signs of fatigue call for a rest period either for the individual alone or for the whole group, depending upon the number involved.
3. Relaxation must be accomplished before skill can be achieved.
4. Deepened breathing which comes as an accompaniment of effort will tend to produce relaxation while holding the breath which comes as an accompaniment of tension will tend to produce stiff and awkward movements.

Information and Knowledge.—Physical education class work should be rich in its informational content. Much material is available: it remains only for the teacher to make use of it. First there are the rules of games and instructions for playing and scoring them. After that comes a wealth of material concerned with the origins of the various games, the peoples who originated them, the history of their progress, their relation to other phases of life, the underlying philosophy connected with their promotion, and the forecast as to their future significance. Added to these are the following items of information that should be taught in activities classes as they relate to each activity being studied:

1. The duties of captains, leaders, officials, and players.
2. The essentials of good sportsmanship.
3. The etiquette of the activity.
4. The essentials of good form and good performance in the activity.
5. Methods of helping classmates in the activity.
6. Methods of protecting one's self and others in the activity.
7. Methods of conserving energy during the activity.
8. Methods of improving one's own effort and those of one's team as a whole.
9. Methods of judging success in the activity.⁷

It is not enough to teach skills to girls for their own participation in pursuit of recreation: the actual adult sports situation is, to a great extent, one of spectator sports, and girls and women should be educated to become intelligent spectators. Sports appreciations should be developed just as are music and art appreciations. This is more important for girls than for boys since girls, on the whole, do not acquire such appreciations unguided. They are not naturally sports-minded although they usually make up a large share of sports spectator groups. Their lack of understanding and appreciation of what they see is a common topic of conversation among men who as a rule find them uninteresting com-

⁷ In part suggested by David K. Brace, "Measurement of Achievement in Physical Education," *American Physical Education Review*, October, 1927, pp. 567-68.

panions on such occasions; even cartoonists are not unaware of this shortcoming. This education of girls in appreciation of spectator sports is clearly the responsibility of the physical education department.

Attitudes and Appreciations.—As the child practices at motor skills, and absorbs the information and knowledge connected with an activity, and works it all into his life experiences, he gleans thereby concomitant learnings that are inescapably a part of motor activity training. Just what brand of concomitant learning he will achieve depends almost wholly upon the kind of leadership which accompanies the activity. The teacher must consciously strive for the following outcomes for her pupils:

1. Obedience to captains, leaders, officials and rules.

2. Willingness to take turns, help playmates, be selected as a leader on the basis of merit only, cheer a good performance even if that of an opponent, and subject personal desires to the good of the group.

3. Ability to take adversity as well as success impersonally, to lose without complaint or alibi, to win with modesty, to persevere in the face of adversity, to evaluate self on a rational basis, to be optimistic, cheerful, calm and controlled, to appreciate good performance when choosing sides, and to observe all rules of good sportsmanship.⁸

Whether these concomitant learnings come out of the teaching of physical activities depends entirely upon the teacher. They do not just happen to children as they toss balls about or race up and down playing-fields with each other. Leadership that is conscious of what it wants to call forth is absolutely necessary. The opportunity for these learnings exists in such a depth of richness in the physical education field that it is a serious reflection upon the teacher's interest and ability if they are not an outcome of her teaching. They will not be an outcome, however, unless she clearly recognizes the opportunity and definitely organizes her teaching to bring out these learnings.

Teaching Suggestions.—For practical hints for effective teaching there is excellent literature available.⁹ Space is here given only for

⁸ Arrangement of material from Brace, *loc. cit.*

⁹ The following are suggested:

Cobb, Walter F. and Hutchinson, Dorothy, *Suggestion for Physical Education Program for Small Secondary Schools, Physical Education Series, No. 3, Department of Interior, Bureau of Education*, Washington, D. C., 1923.

Danford, H. G., "The Elementary Teacher As a Physical Education Teacher," *Journal of Health and Physical Education*, January, 1936.

brief mention of certain topics which are frequently neglected in our literature.

Motivation.—There are many teaching devices to use as motivation such as:

1. Teaching skillfully and enthusiastically.
2. Having the class keep work notebooks.
3. Having the class keep activity scrap-books.
4. Having forum discussions about activities.
5. Posting graphs of class and student progress.
6. Showing moving pictures of the activities.¹⁰
7. Using posters about activities.
8. Requiring class attendance at demonstrations and tournaments with later discussion of the performance.
9. Having competition or demonstrations as a final feature of class activity.
10. Offering opportunity to those who are highly skilled to acquire still more skill.
11. Explaining the values of the activities in relation to body development and efficiency and leisure education.

Voice-Savers.—The average woman's voice does not carry well in large spaces such as gymnasiums and play fields so that it is apt to become strained and shrill unless she has received effective training in voice placement in its application to physical education work. To save her voice she must learn, first, to teach without unnecessary talking and, secondly, to use voice-savers.

Ireland, Allen G., "The Administration of Physical Education," *Journal of Health and Physical Education*, June, 1935, p. 25.

Kerr, A. M., "Demonstration Lessons in Health Instruction," *Journal of Health and Physical Education*, January, 1935.

Neilson, N. P. and Van Hagen, Winifred, *Physical Education in Elementary Schools*, New York: A. S. Barnes and Company, 1930.

Rugen, Mabel and Saurborn, Jeannett, *Physical Education Teaching Manual*, Ann Arbor, Michigan: Edwards Bros., Inc.

Sharmon, Jackson R., *The Teaching of Physical Education*, New York: A. S. Barnes and Company, 1936.

State of Pennsylvania, *Course of Study in Health Instruction and Physical Education, Grades I-VIII*. Department of Public Instruction, Bulletin No. 12, Harrisburg, Pennsylvania, 1933, p. 14.

Stoddard, A. J., "The Integration of Physical Education," *Journal of Health and Physical Education*, September, 1934, p. 6.

Williams, Dambach and Schwendener, *Methods in Physical Education*, Philadelphia: W. B. Saunders Company, 1932.

¹⁰ The Women's Athletic Section of the American Physical Education Association has a Committee on Motion Pictures which is trying to establish a sports film library without the aid of commercial firms. At present all films available are kept in a film library in the Department of Physical Education for Women, The State University of Ohio, Columbus. Write there for the list of films available and their rental price.

The two voice-savers in most common use are hand-clapping and whistle-blowing. The first is in itself a ridiculous gesture when done "solo" fashion to gain the attention of a group. The person resorting to such a device usually appears either "bossy" or silly, and as done by some teachers it is quite ineffective. This device used also by many teachers to mark rhythm is not only disliked by most pupils but it is positively irritating to many. Good teaching employs other methods of voice-saving.

The sparing use of a megaphone may be advised under certain conditions of great area to cover or of great noise to overcome.

As an aid to teaching, whistles should be used as sparingly as possible. The almost universal use of whistles for all physical education activities, even for dancing classes as used by some teachers, is not advisable. Frequent blowing of a shrill whistle is a nerve strain for many children. Shrill-toned whistles should be avoided except during competitive sports contests when different toned whistles are necessary. None but a low-pitched, musically-toned whistle should be used for class work and that only when absolutely necessary to gain pupils' attention without shouting. Some teachers blow whistles more loudly than is necessary so that children flinch; others use them too freely thus filling the class hour with unnecessary noise.

Some teachers use a tom-tom as a voice-saver. This innovation is pleasing to most children but in marking rhythm there is danger of overdoing it so that the pupils find it a decided relief to have the teacher at last bring to an end the monotonous vibrations.

Castanets, properly used, give a sound that is neither shrill, harsh, nor startling. It is a sound quite dissimilar to other sounds connected with class activities, hence immediately recognized for what it is—a summons to attention from the teacher. Since they are not a common form of plaything children love to be summoned by their sound. It is not children alone who like their use; the author has always used them in her college teaching, reserving the whistle for competitive sports situations alone; she has found the college age, too, prefers castanets to whistles for general use.

ORGANIZATION FOR TEACHING

Class Load.—The North Central Association of Colleges and Secondary Schools recommends a pupil ratio per hour of 25 to 1 with 150 pupil periods as the maximum for any one day.¹¹ Nash reports a

¹¹ Sharmon, *op. cit.*, p. 144.

Pacific Coast survey¹² showing a median of 205 pupils per day per teacher for men and 200 for women.

Allocation of Time.—The time assigned for class work should be outlined carefully with definite allotments of minutes made for each section of the work. The teacher should plan the program in full detail within each subdivision of time and, in teaching, she should adhere to the planned schedule.

Outlines of time division as suggested by different authorities follow.

*Sixty-minute lesson:*¹³

(a) Indoor:		(b) Outdoor:	
	Minutes		Minutes
1. Dressing and taking roll	5	1. Dress and roll call	5
2. Marching (tactics)	3-4	2. Run or	1-2
3. Calisthenics, stunts, skills or apparatus	15	Calisthenics, stunts	6-8
4. Games, dancing, contests . . .	20	3. Game skills, track and field practice skills	10-15
5. Showers, dress, dismissal . . .	15	4. Games	10-15
		5. Showers, dress, dismissal	15

*Forty-five-minute lesson:*¹⁴

Dress and Roll Call	8 minutes	Announcements and formal	
1st squad period	5 "	exercises if any	5 minutes
2nd squad period	5 "	Playing one game in the	
3rd squad period	5 "	inter-gym. squad league . . .	9 minutes
		Dress	8 minutes

*Thirty-minute period for elementary schools:*¹⁵

Grade Three

- 10:00-10:15 Class Assembly—Walking single file into big circle.
- 10:05-10:15 Singing Game.
- 10:15-10:25 Group Games—Each squad playing a different game.
- 10:25-10:30 Stunts.
- Dismissal—One straight line.

Pupil Leadership.—The proper education of the child calls for training in leadership and the physical education class offers rich op-

¹² Jay B. Nash, *The Administration of Physical Education*, A. S. Barnes and Company, New York, 1932, p. 341.

¹³ State of Delaware, *Course of Study for Junior and Senior High School Physical and Health Education*, Part III, Department of Instruction, 1934, p. 41.

¹⁴ Ethel Bowers, "Squad Organization of Gymnasium Classes," *Journal of Health and Physical Education*, April, 1930, p. 33.

¹⁵ Jessie R. Garrison, "Typical Thirty-Minute Teaching Period for Elementary Schools," *Journal of Health and Physical Education*, January, 1933, p. 49.

portunity for such training. According to the findings of the National Survey of Secondary Education,¹⁶ pupil leaders are used in physical education in most schools. Whether or not their use is a necessity because of large enrollment the primary purpose of such procedure should be the training of the child.

Pupil leaders can be used effectively not only in regular class periods but at recess, noon, and after-school play hours, and to help with demonstrations, play days, field days and extra-school programs.

A timely note of warning is sounded by the Supervisor of Physical Education of the Detroit Public Schools as follows:

It should be remembered, however, that student leadership is valuable only to a certain limit. It needs careful adult direction and supervision to make up for its lack of experience, permanence, and unity of policy. The director must furnish guidance throughout, both in planning and promoting the program, and be constantly alert to see that the activities are carried out under fair and safe regulations. Students, moreover, must not be asked to undertake responsibilities that are too burdensome from the standpoint of their health and school efficiency.¹⁷

Organizing Leaders' Groups.—There are many ways of organizing leaders' groups. The method used should be chosen as the one best fitted for the particular situation. Excellent advice is given in the following:

To teachers contemplating the organization of leaders' clubs, I would say: Do not be discouraged if you find your girls cannot take responsibility the first year. Girls from fifteen to eighteen are decidedly human, and do not take responsibility unless it is given to them, and it takes time and sympathy and patience and understanding to make them realize that it has been given to them. It takes about three years to create an atmosphere that will "carry on" with very little help from the instructor. After that the policy and aims of the club are so well established that leaders can teach new leaders. We try to make our girls feel that invisible line that is between all pupils and instructors or between any two people where one has the responsibility of the other, and we try to make them appreciate the fact that when they are doing the service of a leader, they cross that line from the side of the pupil to that of an instructor and must take the same responsibility and demand the same respect.

¹⁶ P. Roy Brammell, *Health Work and Physical Education*, Bulletin No. 19, Monograph No. 23, Department of Interior, Office of Education, 1932, p. 88.

¹⁷ V. S. Blanchard, "Face to Face with Reduced Budgets," *Journal of Health and Physical Education*, March, 1933, p. 55.

If we can develop that sense of responsibility in our girls, it does not matter whether we have championship basketball teams or not.¹⁸

A wise teacher organizes student leadership in all her classes as quickly as possible. The surplus energy of the strong sturdy girls who long to emulate their brothers by making the school team and playing in inter-school competition can be turned into this good channel of service. These girls almost invariably make fine student leaders and find satisfying emotional experience in guiding their schoolmates in their physical activities.

The Teacher's Responsibility Toward Leaders.—Teachers should hold their pupil leaders responsible for the full performance of their duties. They should place faith in them as they delegate to them responsibilities and they should vest in them sufficient authority to meet the responsibilities.¹⁹

Responsibilities of Pupil Leaders.—All duties and authorities of leaders should be understood between the teacher and the leaders and between the other pupils and the leaders. They should accept responsibility for the full performance of their duties; be democratic, not autocratic; lead by example rather than by precept; be positive in their attitudes; give satisfactions, not annoyances in their leading; discover and develop the potentialities of their group; encourage the slower individuals; challenge the superior individuals; and aim for self-expression and self-direction of their group.²⁰

Squad Leaders.—Those leaders who are chosen for every six to twelve pupils in a class are called squad leaders. This title should not be confused with that of "class leaders" and "pupil leaders" which refer to a higher type of responsibility. In some schools squad leadership is the only form of pupil leadership employed. In other schools there may be only the higher form without the use of squad organization within the class. In still other schools both forms of leadership may be in use. Squad leadership should serve as an apprenticeship to the higher form. It offers rich opportunity to grant experience to large groups of children. The educational value of pupil leadership in physical education activities is so important that teachers should organize

¹⁸ Ruth E. Beach, "Leaders' Clubs in the Girls' High School Physical Education Department of Pittsburgh, Pennsylvania," *American Physical Education Review*, October, 1927, p. 616.

¹⁹ Karl Webber Bookwalter, "Developing Pupil Leadership Through Physical Education," *Journal of Health and Physical Education*, December, 1934, pp. 34-35.

²⁰ *Ibid.*

their classes into such squad organization that every pupil in every class has an opportunity some time during the year to serve as a leader.

The duties of a squad leader are of lesser importance and require less ability than those of the group or class leader. Graduation from squad leadership to higher leadership should come as a reward of good service to the squad and a showing of real ability to move upward.

Squad Organization.—By careful planning in the use of squads a teacher can handle large classes effectively. As yet, we have no experimental evidence to prove what is the best size of the squad unit for learning new skills,²¹ although some authorities name eight to twelve as the correct size of squads. Squads should have a permanency of organization, the members holding together with a leader for a set period.²²

LESSON PLANNING

Lesson Objectives.—For the sake of careful and purposeful teaching, the teacher should give thought to the objectives which she hopes to attain in each lesson. She should put them down in writing and refer to them frequently as she plans her work. She should differentiate between the general objectives which should run through all her teaching and the specific objectives for each activity.

In drawing up lists of objectives for guidance, Schrader warns against "an array of high-sounding objectives to which the practice carried on bears no resemblance."²³

Generalized objectives such as health and worthy citizenship are

²¹ John F. Bovard and Frederick W. Cozens, *Tests and Measurements in Physical Education*, p. 25, W. B. Saunders Company, Philadelphia, 1930.

²² Excellent examples of pupil leadership organizations are given in various magazine articles as follows:

Beach, Ruth E., *op. cit.*, pp. 614-16.

Bookwalter, Karl Webber, *op. cit.*, p. 45.

Bowers, Ethel, *op. cit.*

Danford, H. G., *op. cit.*

Graves, E. Boyd, "A Practical Program of Physical Education for Junior High Schools," *American Physical Education Review*, May, 1929, p. 292.

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Schroeder, Elinor, "Possibilities and Organization of Student Leadership in Secondary Schools," *Student Leadership*, Women's Division, National Amateur Athletic Federation of America, 1926, pp. 26-27.

Snyder, Margaret, "Girls' Athletic Leaders' Club," *Journal of Health and Physical Education*, September, 1934, p. 28.

²³ Carl L. Schrader, "Physical Education Becomes a Fundamental," *Journal of Health and Physical Education*, April, 1936, p. 215.

but remote even though important. They are attainable only "in the long run" so that, as lesson leads on to lesson and days turn into weeks, they are apt to be overlooked entirely unless the teacher consciously bears in mind such specific things as can be attended to in a short time—such things as do contribute towards the attainment of the remote good. For example a few of the specific objectives which contribute towards the long period objective of learning to become a good sportsman are as follows:

1. To accept referee's decisions without question.
2. To take defeat without excuses.
3. To congratulate the victor.
4. To obey the rules even when not observed.
5. To learn to be willing to take turns.

Similarly should all remote objectives be broken down into specific items such as can be worked into a unit of time as small as an individual class period.

The Committee on Objectives of the Public School Section of the American Physical Education Association²⁴ has set up a long list of teacher objectives and has given a detailed list of graded objectives for primary and elementary grades and for junior and senior high schools, each set being divided under headings of physical fitness, mental health and efficiency, social-moral character, emotional expression and control, and appreciation.²⁵ Every worker in physical education should procure a copy of these lists and give careful attention to these in planning class work.

Lesson Units.—The teacher should make a chart of the activities which she plans to teach at each grade level and for each pupil classification group within each grade. She should divide those activities, which can be so treated, into units of elementary, intermediate, and advanced levels, charting them to follow each other in a proper sequence in order to make a complete picture of pupil progress, unit by unit, activity by activity, term by term, and year by year. If the pupils have had previous work at a lower level with another teacher, she should make her chart only after careful study of the charts used by the other teacher so there will be continuity of educational procedure with the

²⁴ W. H. Mustaine, "Report of Committee on Objectives and Policies of the Public School Section of the American Physical Education Association," *Research Quarterly* of A.P.E.A., December, 1934, pp. 39-40.

²⁵ *Ibid.*, pp. 42-43.

child. In the larger school systems the supervisor should serve as the connecting link for this coordinating work.

Lesson Plans.—Too many teachers teach without specific plans for each individual lesson. The plans for each separate class hour should be put down in writing and no course should begin without the teacher having a definite plan of its progress step by step to the closing. Of course, each lesson plan will be subject to change as the work progresses, and as the teacher finds that her class is either slower or faster than she had anticipated, and as she encounters unexpected interruptions and emergencies to upset her plans. Probably no class ever does proceed smoothly towards its final goal exactly as planned; but without a compass, what ship would make its port? ²⁶

Dr. Allen Ireland, State Director of Physical Education of New Jersey, lists the values of lesson planning²⁷ as follows:

1. Insures definiteness in planning.
2. Provides basis of measuring progress.
3. Enables department to keep its program up-to-date.
4. Furnishes the superintendent of schools with a definite content and procedure.
5. Lessens waste, inefficiency, and overemphasis.
6. Answers the charge that physical education is a "hit or miss" procedure.
7. Insures consideration of health and safety factors.

²⁶ There is a wealth of printed material available in books, pamphlets and magazines giving sample lesson plans in a great variety of activities. The inexperienced teacher should avail herself of all such assistance. A brief list of suggestions is as follows:

Anderson, L. and McKinley, F., *An Outline of Physical Education For the First and Second Grades*, New York: A. S. Barnes and Company, 1930.

Blanchard, V. S. and Collins, Laurentine B., *An Activity Program in Health Education for Intermediate Schools*, Board of Education, Detroit. (This book covers lesson units for ten activities for girls: basketball, volleyball, rhythms, softball, soccer, speedball, golf, tennis, fieldball, and swimming. Copies may be procured for \$2.00).

McCloy, C. H., "Bibliography of Health and Physical Education," *Research Quarterly* of A.P.E.A., October, 1932 and March, 1937. (See references on teaching listed under sub-headings for various activities).

Manuals of Physical Education published by many State and City Departments of Education are rich in lesson plans. (Special mention is made of those of Delaware, Massachusetts, Ohio, Washington, Detroit, Kansas City and Wichita).

Neilson, N. P. and Van Hagen, Winifred, *op. cit.*

Sports For Girls and Women, an annotated bibliography including mention of both books and magazines which cover the various sports. Published by Women's Athletic Section of A.P.E.A. and for sale at A.P.E.A. office for \$1.00. (Unfortunately it contains neither index nor pagination but the activities are referred to in alphabetical order. Under each heading is given a complete list of available material with comments on each item).

²⁷ *Op. cit.*, p. 46.

8. Makes adaptation to pupil needs more accurate and definite.
9. Protects against omissions and errors.
10. Facilitates daily work of the instructor.

THE TEACHER'S RESPONSIBILITY

The teacher of physical education activities must not only be deeply interested in her classwork, but she must also have an enthusiasm for the promotion of the extracurricular activities related to her field (play days, meets, tournaments, and health campaigns). She must not only have an appreciation of the objectives of teaching physical activities but she must also be proficient in the art of instructing in motor skills. Beyond this, she must understand that the whole purpose of techniques and scientific methods of teaching is not to glorify the subject being taught but to educate the child in the best possible manner through the agency of the subject. She must perceive that accompanying the techniques and methods there must be correct attitudes, not only on the part of the pupils, but also on the part of the teacher as well. She must not only be fully aware of the inspiration of conscious personal influence, but she must also appreciate the subtlety of unconscious personal example. As Emerson said:

*That which we are we are all the while
teaching, not voluntarily, but involuntarily.*

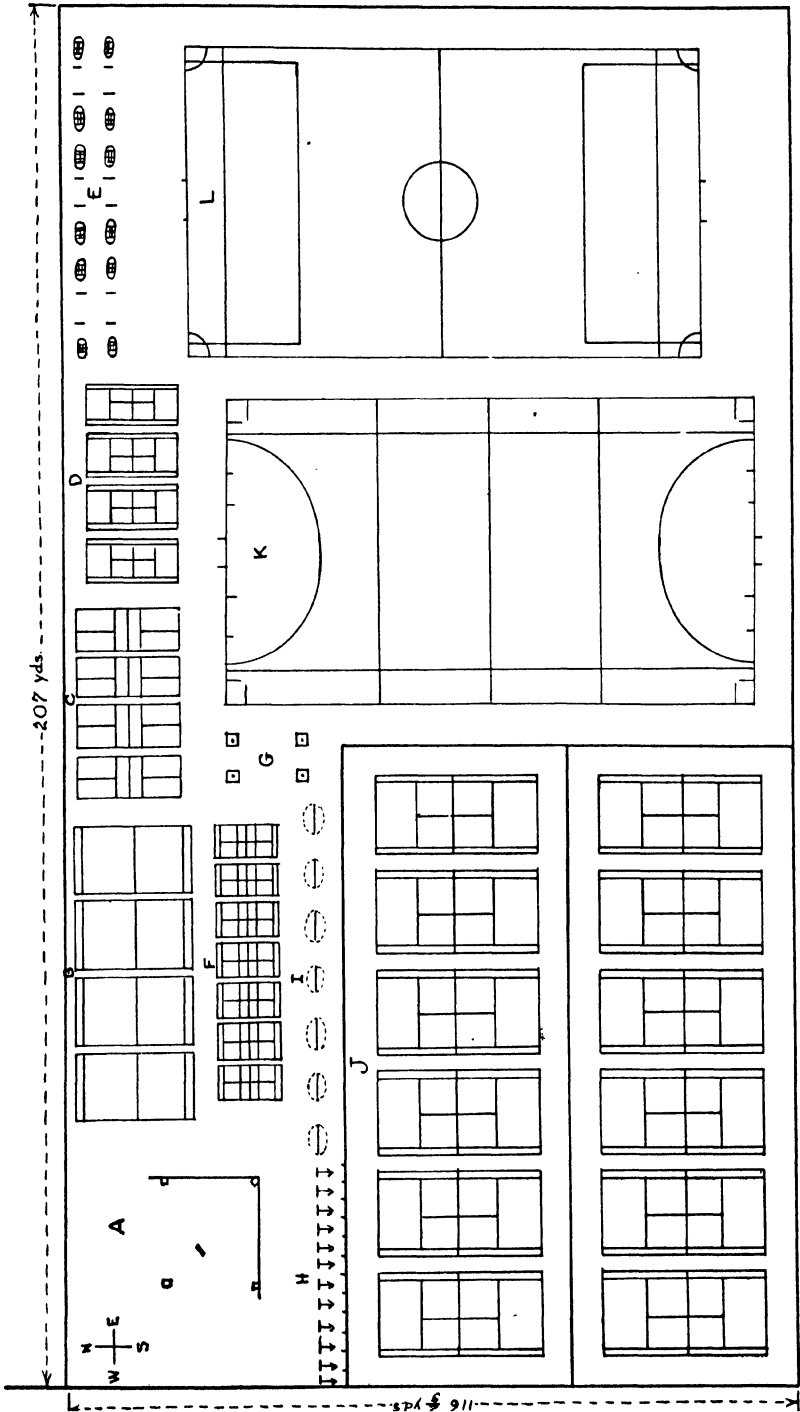


FIG. 74.—A five-acre playing field laid out for a physical education program for girls. A, baseball diamond; B, volleyball courts; C, badminton courts; D, shuffleboard courts; E, paddle tennis courts; F, tennis courts; G, horseshoe pitching lanes; H, shuffleboard courts; J, large area.

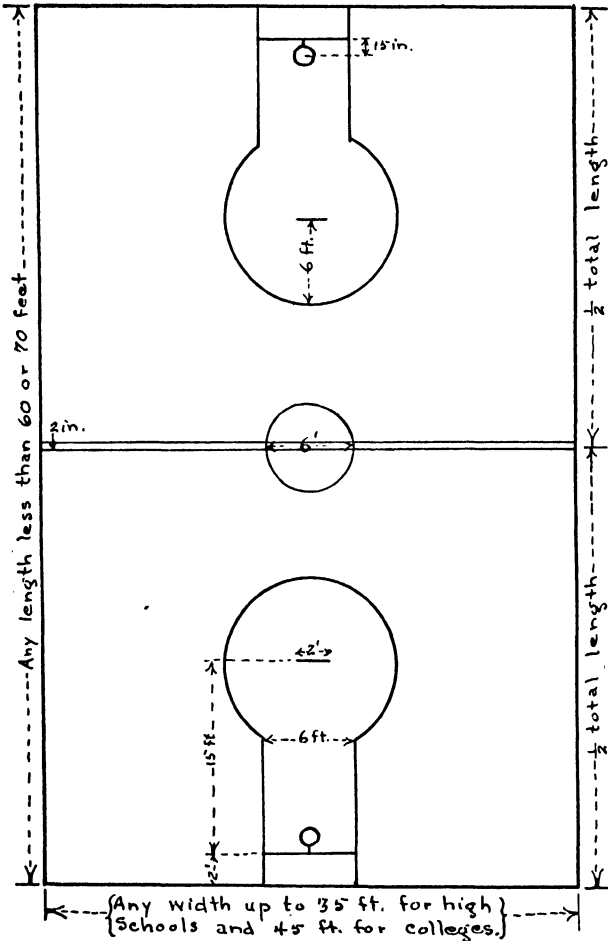


FIG. 75.—Official dimensions of the two-court basketball field. The dimensions indicated within the boundary lines should not vary regardless of the size of the courts.

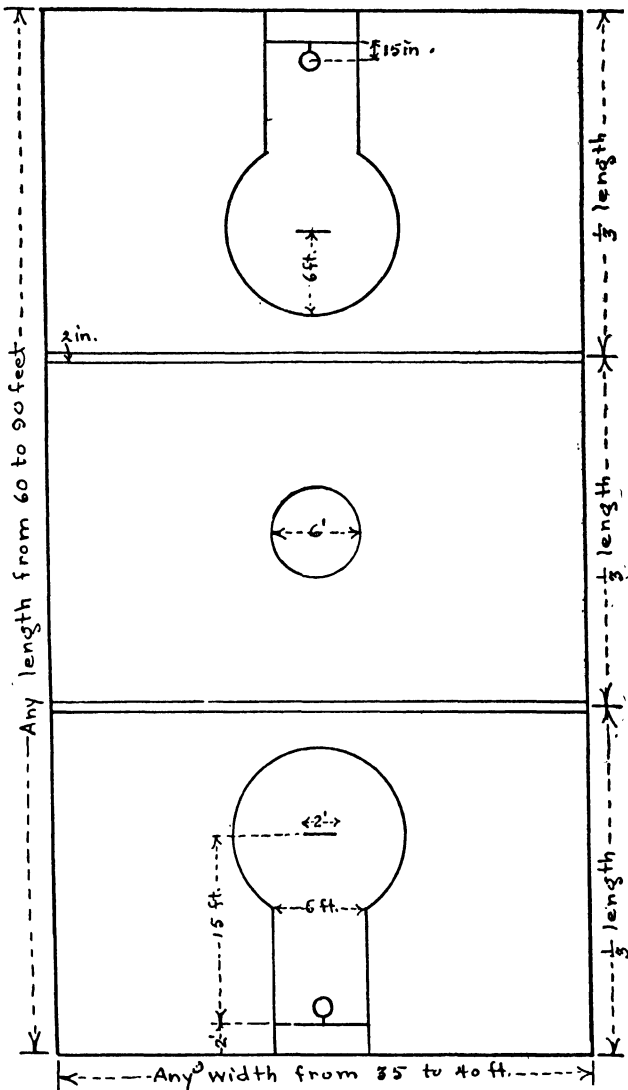
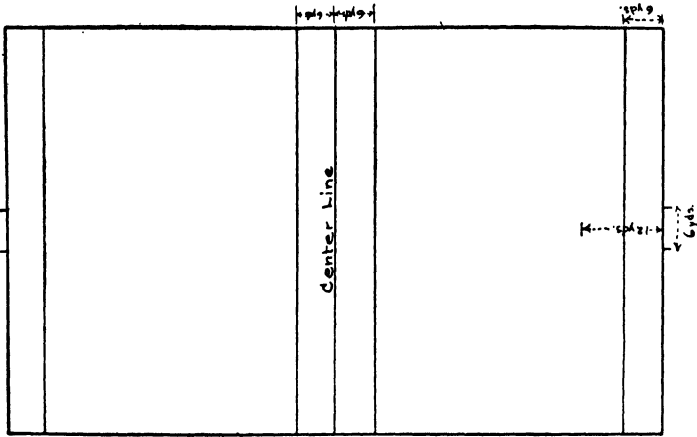
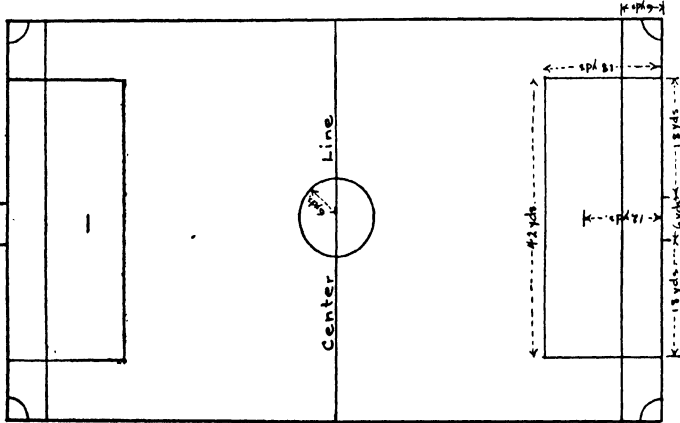


FIG. 75a.—Official dimensions of the three-court basketball field drawn to the same scale as that of Figure 75. The dimensions indicated within the boundary lines should not vary regardless of the size of the courts.

SPEEDBALL



SOCCER



HOCKEY

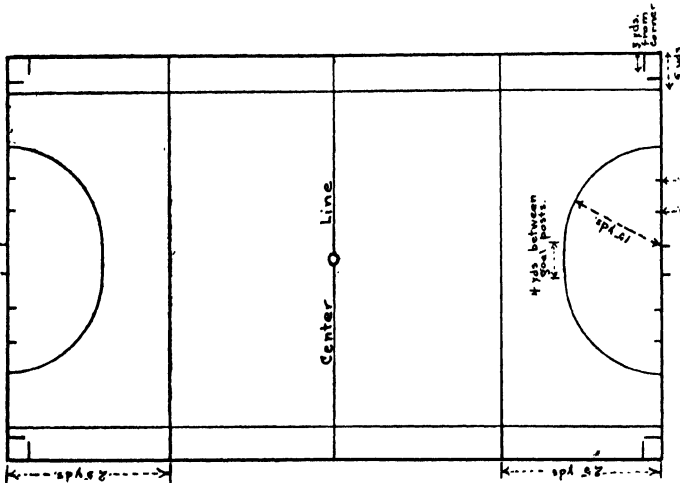


FIG. 76.—Comparative designs of hockey, soccer, and speedball fields drawn to the same scale and laid out for a field sixty yards wide by one hundred yards long. The dimensions indicated should not vary regardless of the width and length of the fields.

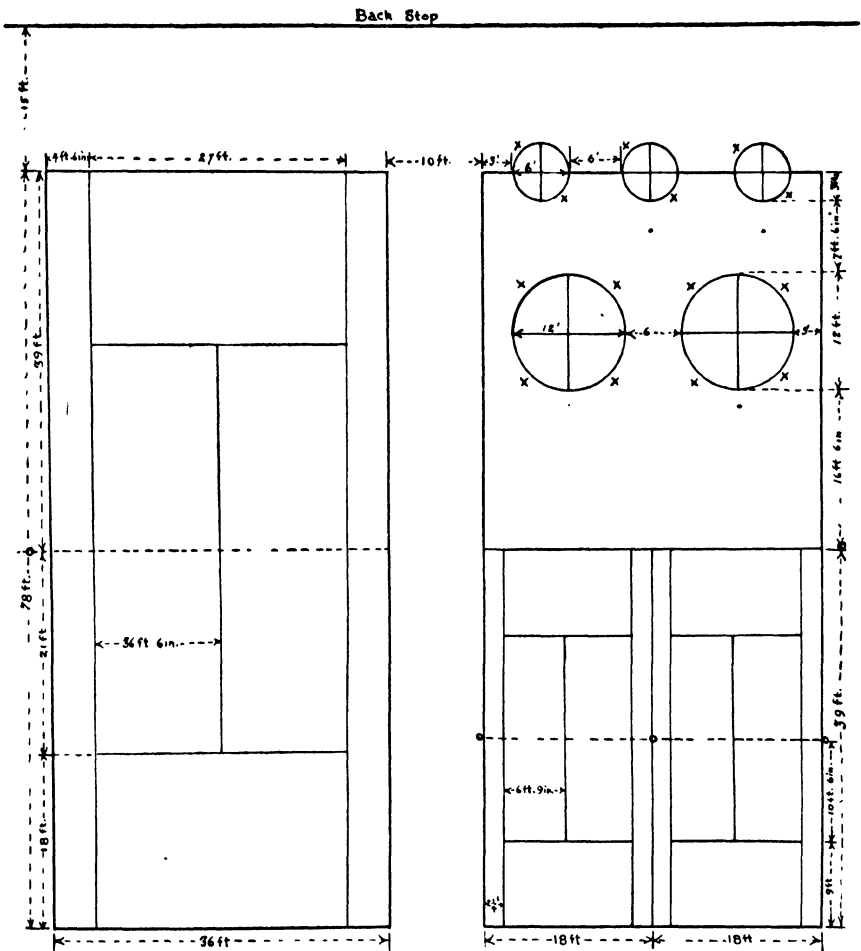


FIG. 77.—The space of two tennis courts laid out to accommodate twenty-six players: four on one regulation tennis court; fourteen on three single and two double tether tennis courts; and eight on two paddle tennis courts.

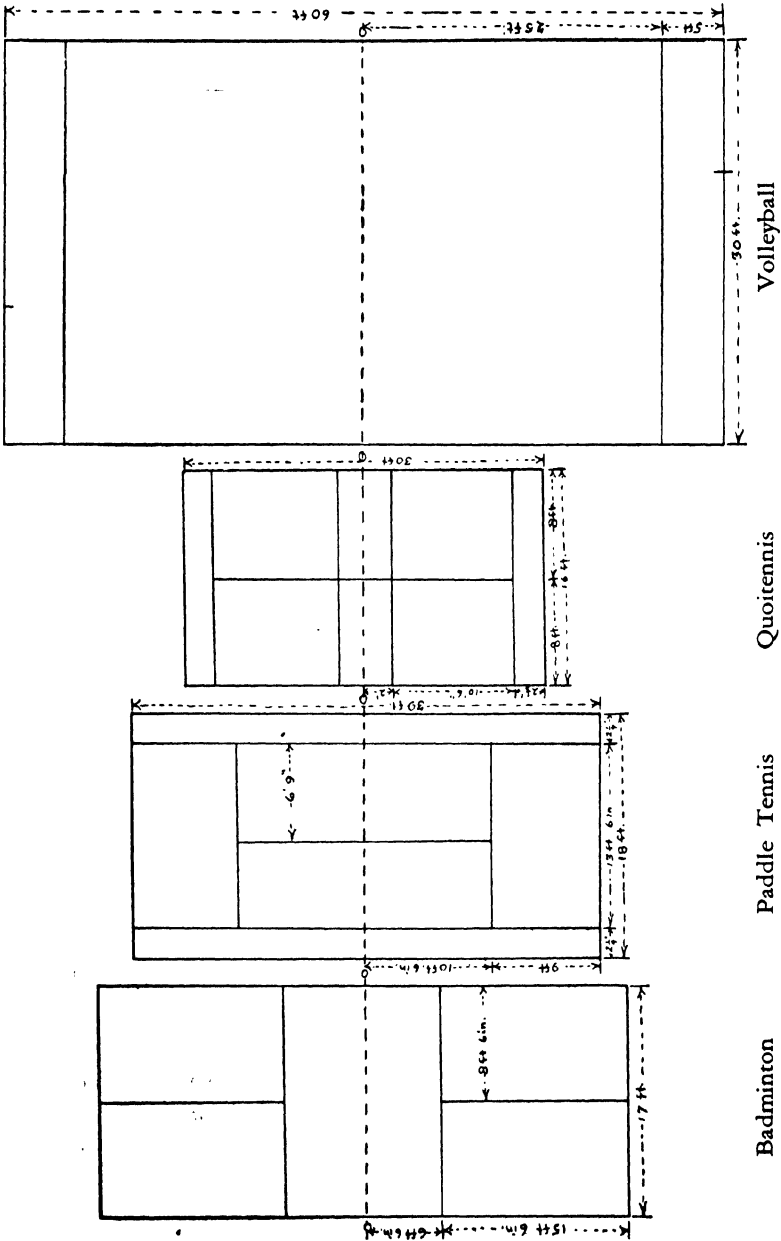


FIG. 78.—Regulation court dimensions and design for four popular recreational sports drawn to the same scale. (Quoitennis by courtesy of Parker Brothers, Inc., Salem, Massachusetts, owners of the trademark "Quoitennis.")

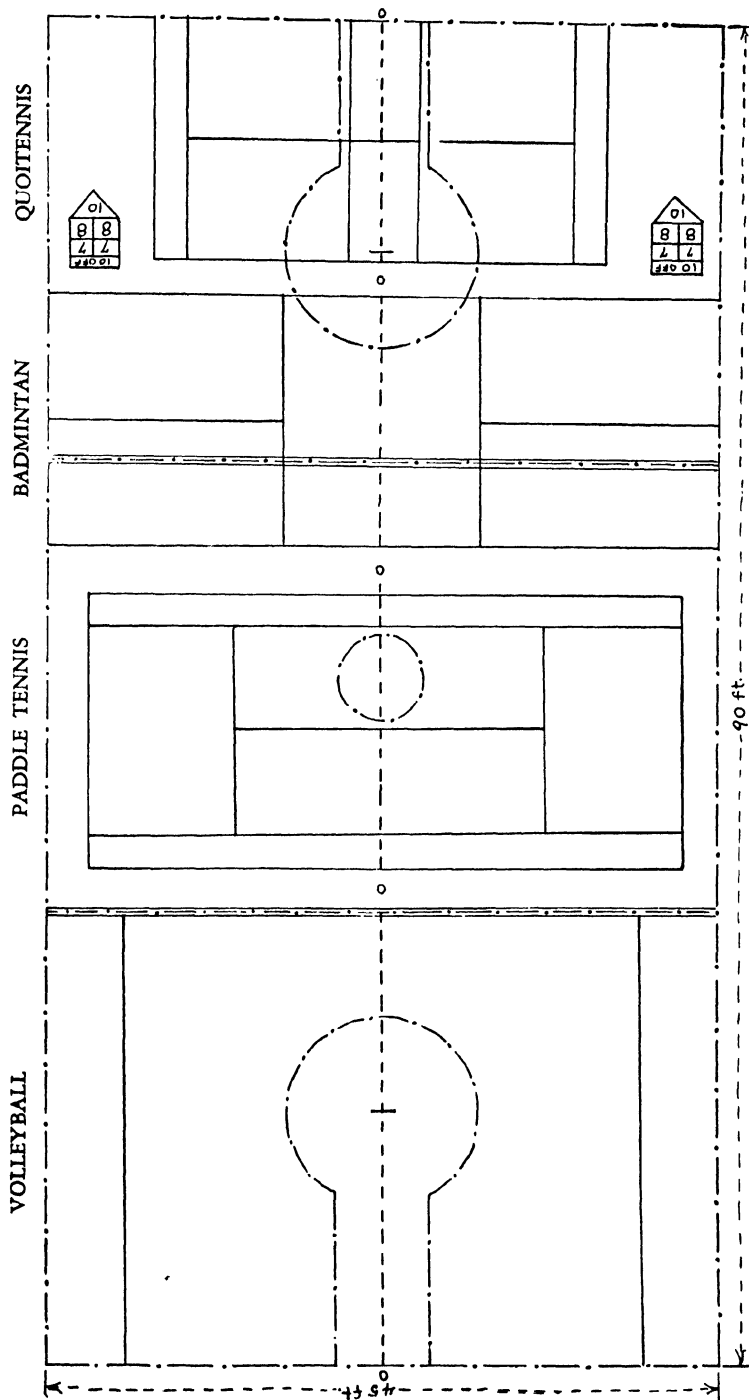


FIG. 79.—A basketball court marked off for a varied recreational sports program. All black lines of basketball courts are represented by long dash and dot; placement of nets by short dash; and the white lines of other courts by straight line.

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