4.0 Introduction

The present study revolves around the syllabus of secondary grade, its efficacy and the need for improvements with the inclusion of Multimodality in the syllabus (IMS), the research gaps for the same have been identified after performing an exhaustive literature review (presented in chapter 2). Following the literature review, an appropriate research methodology (chapter 3) has been formulated to be used for realising the objectives of the study. This chapter encompasses a detailed analysis of the results and discussion on the data that has been collected through the research instruments of questionnaire and interview.

4.1 Demographic Details of Respondents

Questionnaire was used as an instrument for collecting the quantitative five-point Likert data from 366 teacher-respondents. As mentioned in the previous chapter, the questionnaire was divided into three parts. The first part required the respondents to fill their demographic details such as name, name of school, type of school whether government or private, day school or residential school, the classes taught by the teacher, post, age, gender and teaching experience in years (Table No. 4.1). Part B of the questionnaire consisted of 23 statements on a five-point Likert scale focussing on the five parameters of syllabus as defined in the literature review. Part C of the questionnaire included statement to know the teachers' views about the inclusion of multimodality in the syllabus.

The number of respondents for the questionnaire was 366. While collecting the data, it was challenging for the researcher to contact a good number of teachers within the specified category of the teachers teaching the students of secondary grade in the CBSE affiliated

schools. The challenge mainly occurred because in a majority of schools, the number of teachers teaching English to the secondary grade was very limited i.e. only 1-3 teachers. The researcher contacted teachers from 138 schools for eliciting the responses. Thus, a normal CBSE school has been found to have an average of 2.78 teachers teaching English to the secondary grade students.

Table 4.1 Demographic Data of the Respondents

Variable	Characteristics	N	Percentage
Place of School	Jhunjhunu	54	14.76
	Jaipur	93	25.41
	Ajmer	86	23.49
	Rewari	51	13.94
	Delhi & NCR	82	22.40
Type of School	Government	41	11.20
	Private	325	88.79
Type of School	Day school	323	88.25
	Residential	43	11.74
Post	TGT	248	67.76
	PGT	118	32.24
Age	25-30 years	113	30.88
	31-40 years	178	48.64
	41-50 years	69	18.85
	51 years and above	6	1.63
Experience	1-5 years	82	22.41
	6-10 years	122	33.34
	11-20 years	129	35.25
	21-30 years	27	7.37

	31 years and above	6	1.63
Gender	Male	142	38.80
	Female	224	61.20

The data in the above table shows that there were 14.76% teachers from Jhunjhunu, 25.41% from Jaipur, 23.49% teachers from Ajmer; 13.94% teachers Rewari, and 22.40% of the teacher respondents were from Delhi & NCR region. It reflects that the study covers three districts of Rajasthan, one district of Haryana along with Delhi and NCR region. Regarding the type of school in terms of government and private setups, the data reflects that 88.79% teachers worked in private schools whereas 11.20% teachers were from government schools. It can be well-understood by the fact that most of the CBSE affiliated schools are private schools; from the government sector only Kendriya Vidyalayas, Navodaya Vidyalayas, Sainik Schools, Military Schools, Ordinance Schools are affiliated to the CBSE. Not all these schools are available in the cities and districts where the data for the study has been collected from. Hence, the number of teacher respondents from these schools is significantly lower than the private schools. 88.25% of the teachers were teaching in day schools compared with the 11.74% of them teaching in the residential setups.

As regards the post of the teachers, the data shows that 67.6% of the respondents are TGTs (Trained Graduate Teachers) whereas 32.24% of them are PGTs (Post Graduate Teachers). To reflect on the age of the respondents, their age has been divided into four categories i.e. 25-30 years, 31-40 years, 41-50 years and 51 years and above. The most number of teachers belong to the age-group of 31-40 years with 48.64% whereas 30.88% teachers belong to the age category of 25-30; there are 18.85% and 1.63 percent teachers in the age-groups of 41-50 and 51 and above respectively. Regarding the experience of the teachers, five experience groups have been created i.e. 1-5 years, 6-10 years, 11-20 years, 21-30 years and 31 years and above

as reflected in table 4.1. Most of the teachers are in the experience brackets of 11-20 years and 6-10 years with 35.25 and 33.34% respectively. Only 22.41% teachers had 1 to 5 years of experience. The experience brackets of 21-30 years and 31 years and above are the ones to which the least number of respondents belonged with 7.37 and 1.63 percent of the total number of respondents. The average experience of the teachers has been calculated through the mean value which is (μ=*10.97*). Regarding the gender, 38.80% of the respondents are males whereas 61.20% are the females. It reflects that more than 60% of the teachers teaching English in the CBSE affiliated schools have been found to be females.

After presenting the demographic data of the respondents, both parts quantitative and qualitative analysis have been presented individually with respect to the research objective and research questions.

4.2 Part one: To understand teachers' perception towards the existing CBSE Secondary Grade English syllabus (Quantitative approach for analysis)

Part one deals with the quantitative analysis in order to understand the secondary grade teachers' perception towards the syllabus and the use of multimodal tools of English. As the statistical techniques and tools used are parametric in nature, their assumptions have been tested and fulfilled. The analysis has been done at different levels: assumption of parametric tests, reliability and validity, Exploratory Factor Analysis (EFA), correlation, and paired samples t-test.

Before presenting the findings as per research objectives and questions, the normality assumptions and reliability analysis are presented.

4.2.1 Assumptions of Parametric test

The assumption of normality of data is considered a prerequisite for the statistical tests as it helps in deciding the use of parametric or non-parametric tests. It is based on the assumption

that the source of data is normally distributed (Kothari, 2004). The present study also requires statistical tests for understanding the perception of teachers. The data needs to be normally distributed for using parametric tests otherwise non-parametric tests will need to be used. Even if there are more respondents than 30-40, the data may be normally distributed and violation of normality is not a major issue in larger sample sizes than 100 (Ghasemi & Zahediasl, 2012; Altman, 1995). No data can be perfectly normal. Although it is believed that for meaningful conclusions, assumptions of normality should be followed irrespective of the sample size (Mishra et al, 2019). There are two main methods of assessing normality: graphical and numerical (including statistical tests) (Bland, 2015 & Campbell, 2007). To test the normality of data in the present study, both graphical and statistical tests have been carried out. Skewness and Kurtosis values have been extracted using SPSS, z-values have been calculated by dividing the skewness and kurtosis values of different variables with standard error. The acceptable range of z-values to assume the data as normally distributed is from -1.96 to +1.96 (Ghasemi & Zahediasl, 2012). Z-values of skewness and kurtosis for the statements on syllabus design have been found to be 0.48 and -0.03 respectively which is within the acceptable range mentioned above. However, the z-values of skewness and kurtosis for the seconds section are -7.75 and 1.70 which shows that the z-value of skewness is not within the range of acceptable z-values. Most of the values have been found to be within the acceptable range of z-values and only one value of section on IMS does not meet the requirement; the histogram and Q-Q plot of the whole data has been analysed for parametric assumption of data. On a careful examination of the histogram, a normal data returns a bell curve like shape in a histogram (Kothari, 2004). Histogram in figure no. 4.1 shows a bell-shaped curve. Normality analysis is supported by an inspection of the normal probability plots (labelled Normal Q-Q Plots). In these plots, the observed value for each score is plotted against the expected value from the normal distribution. A reasonably straight line suggests a normal distribution (Pallant, 2005).

The Q-Q plot shows the data dots along the line for the most part. Both histogram and the Q-Q Plot reflect an almost normally distributed data along with almost all the the z-value; therefore, the data has been considered as normally distributed and fit for using parametric tests.
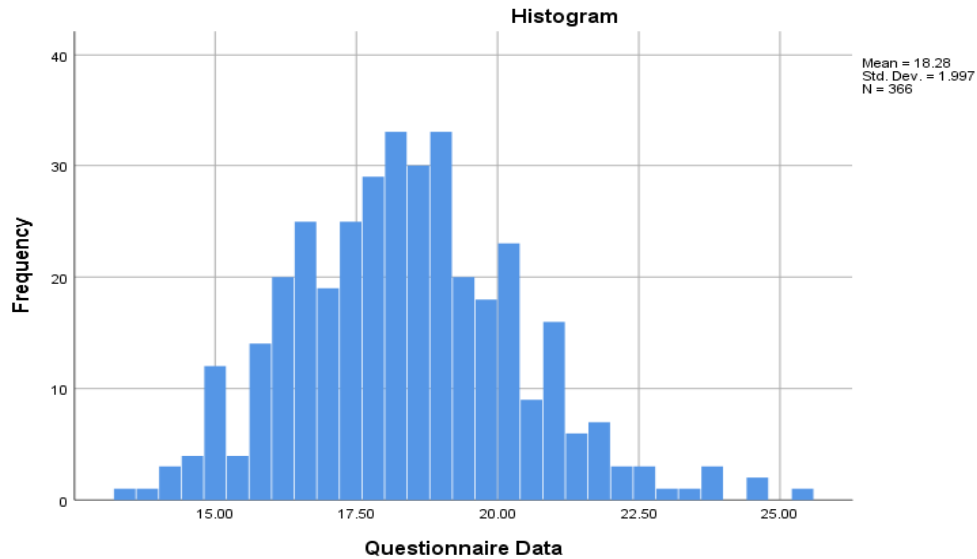

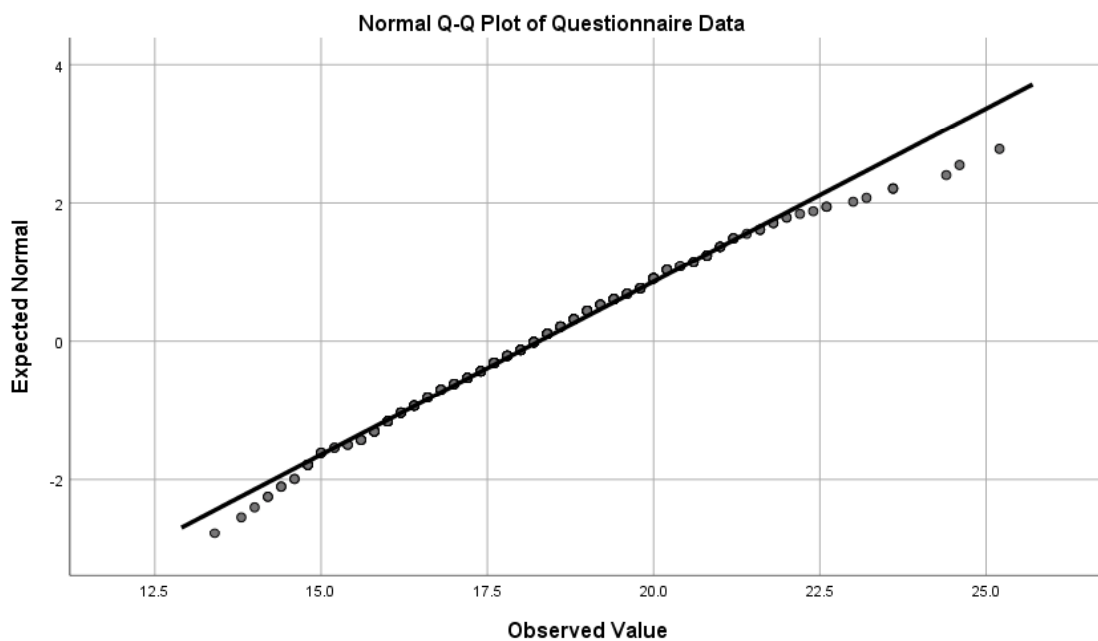**Figure 4.1 Histogram Questionnaire Data**

Figure 4.2 Normal Q-Q Plot of Questionnaire Data

4.2.2 Reliability Analysis

Reliability of the questionnaire has been analysed separately for Part B and Part C which contain 21 and 9 five-point Likert scale type statements respectively. Reliability has been analysed by checking the internal consistency among the different items using Cronbach's Alpha (α). The α values extracted after the analysis are shown in the table 4.2.

Table no. 4.2 Reliability Analysis (Cronbach's Alpha values)

Part A & B	Number of Items	(α)
Parameters of Syllabus	21	.779
Inclusion of Multimodal Tools in the Syllabus (IMS)	9	.956
Cronbach's Alpha for the whole questionnaire	30	.738

α as the most common measure of scale reliability. The α values are within the acceptable range which is above 0.7 as mentioned in Chapter no. 3. The extracted values reflect that the items in the data are internally connected and have 'good' to 'excellent' interrelatedness (DeVellis, 2016).

After fulfilling the requirement of assumptions of the data and reliability of the instrument, the study tried to answer the research questions. The analysis started with the development of concept of parameters of syllabus and IMS as per teachers answering research questions a. and b.

a. R.Q. What is teachers' understanding towards the syllabus of English?

b. R.Q. What is the teachers' understanding towards the different multimodal tools used in the existing syllabus?

4.2.3 Development of Concept of Parameters of Syllabus and IMS as per Teachers

The assessment of assumptions of parametric test indicated that the assumptions were fulfilled which allowed the further analysis to be parametric in nature. Therefore, before assessing the level (mean and standard deviation) of teachers' perception towards syllabus and IMS, the first step was to define the parameters of syllabus and IMS as per secondary grade English language teachers of Rajasthan and NCR.

Before answering the research objectives and research questions, the study first presents the findings of exploratory factor analysis (EFA), which was carried out to define the parameters of syllabus and IMS. This analysis provides insights into the understanding of these parameters as per Rajasthan and NCR secondary grade English teachers' perception/understanding. This provides more clarity in understanding these parameters and further how they were perceived by teachers and correlated with each other. Therefore, the findings start with EFA analysis. Also before presenting EFA, the complete set of questions used for the study is analysed followed by data purification, reliability (already presented in section 4.2.2), and validity assessment. The same is presented below.

Table 4.3 Analysis of Statements used for the Questionnaire

Sr. No.	Statements	SD	D	N	A	SA	M (µ)	S.D.
	Parameter 1: Objectives & Content							
1	The existing _____ enables the learners to communicate effectively and appropriately in real-life situations	6.8	49.2	28.7		—	2.52	0.833
2	The existing _____ enables the learners to use English effectively for study purposes across the _____ .	11.5	61.5	18.0	7.7	1.4	2.25	0.811
3	The existing syllabus _____ all the four language skills i.e. listening, speaking, reading and writing.	9.6	51.9	19.9	17.5	1.1	2.48	
4	The existing _____ develops interest and understanding of literature.	12.3	48.1	11.7	24.9	3.0	2.58	
5	The existing _____ makes it easy for the students to revise sentence and grammar structures already learnt.	19.9	39.6	24.6		—	2.36	0.974

No.	Statement						Mean	S.D.
6	The content given in the textbooks is adequate for understanding meaning, interpretation and reading beyond the text.	7.9	38.0	25.1	26.2	2.7	2.77	1.010
7	The existing syllabus has adequate content to develop understanding and skills to adept to different cultures.	11.2	42.3	22.4	21.3	2.7	2.62	1.025
8	The existing syllabus gives them enough exposure to understand and use grammatically correct English language in a day to day life.	15.6	48.4	23.8	11.5	0.8	2.33	0.903
9	The existing syllabus has suitable content to develop creativity among students.	13.4	29.5	29.0	23.5	4.6	2.76	1.095

Parameter 2: Course Calendar

No.	Statement						Mean	S.D.
10	The existing syllabus gives adequate time to cover the topics as per the periods allotted by the CBSE.	3.0	43.7	33.3	18.6	1.4	2.71	0.847
11	The allotted time is enough to carry out all the activities to develop students' language skills	2.7	42.3	35.5		—	2.71	0.804

Parameter 3: Methodology

No.	Statement						Mean	S.D.
12	The existing syllabus has enough multimedia support to make an understanding of the topics/chapters easier for the students.	7.4	51.6	27.3	11.5	2.2	2.49	0.871

No.	Statement						Mean	SD
13	The textbooks in the existing syllabus have enough visual support such as images, maps, graphs help students understand the topics in an interesting way.	13.9	33.9	27.0	18.6	6.6	2.69	1.121
14	The existing syllabus provides access to digital and online platforms for better understanding of the contents of the course	8.5	30.3	21.0	31.4	8.7	3.01	1.144
15	The existing syllabus includes the learning tools such as email, blogs, writing and posting on Wikispace and using kahootz, etc. for developing the writing skills.	7.4	36.3	25.4	23.5	7.4	2.87	1.084

Parameter 4: Evaluation

No.	Statement						Mean	SD
16	The existing system of evaluation allows the teachers to test the students' performance in a holistic manner.	9.3	28.4	17.8	32.8	11.7	3.09	1.203
17	The existing system of evaluation examines not only the memory skills of the students but the application and expression parts as well.	10.7	48.9	22.1	14.5	3.8	2.51	0.992
18	The existing system of evaluation tests the proficiency of using English language for oral communication purposes.	11.7	42.1	27.0	18.6	0.5	2.54	0.943
19	The existing system of evaluation tests creativity among students.	10.7	48.9	22.7	17.2	0.5	2.48	0.91
20	The existing syllabus tests critical thinking among the students.	14.2	44.5	17.5	22.1	1.6	2.52	1.038

No.	Statement	SD	D	N	A	SA	M	S.D.
21	The existing syllabus tests application of the knowledge gained in the subject among the students.	15.8	41.8	22.7	17.2	2.5	2.48	1.030

Part B: Inclusion of Multimodality in the Syllabus (IMS)

No.	Statement	SD	D	N	A	SA	M	S.D.
22	Multimedia and digital resources can help in making teaching and learning more interactive.	2.5	5.2	11.5	44.0	36.9	4.07	0.953
23	Multimedia and digital resources can help in making teaching and learning more interesting.	0.3	11.2	5.2	38.5	44.8	4.16	0.973
24	Multimedia instructional tools help the weak students learn better.	0.3	9.3	14.5	39.1	36.9	4.03	0.954
25	Multimedia computer-supported instructional tools help students to have an international perspective.	2.2	7.7	16.7	38.3	35.2	3.96	1.011
26	Multimedia computer-supported instructional tools make comprehension easier.	0.3	9.0	11.5	42.9	36.3	4.06	0.928
27	Multimedia supported instructional tools help the students learn faster.	0.8	7.1	13.7	44.8	33.6	4.03	0.912
28	Multimedia computer-supported instructional tools make concept application easier.	0.3	5.7	13.4	49.5	31.1	4.05	0.835
29	Multimedia computer-supported instructional tools arouse people's curiosity.	0.3	6.6	12.0	48.1	33.1	4.07	0.857
30	Inclusion of multimedia can improve the syllabus and help in enhancing the understanding of concepts and develop critical thinking among students.	3.3	5.7	11.5	39.6	39.9	4.07	1.017

Note: SD= Strongly Disagree; D=Disagree; N= Neutral; A=Agree; SA=Strongly Agree; M=Mean; S.D.=Standard Deviation.

Table 4.3 shows the percentage of frequencies, mean values and standard deviation of the responses to the 30 statements divided parameter-wise. The first 9 statements describe the teachers' perception on the achievement of course objectives as set by the CBSE for secondary grade students when they pass this grade and quality of course content which is prescribed to them for achieving these objectives. The mean values range from 2.25 to 2.77 for these statements point towards a negative attitude of the respondents towards this aspect. For the statement no. 1, there are around 56% respondents as compared with 15.3% respondents with a μ=2.52 who feel that the existing syllabus has a limited success at enabling the learners to communicate effectively in real-life situations.

The second statement tried to know their perception regarding the scope of enabling the learners to use English effectively for study purposes across the curriculum. This is an important aspect highlighted in the NCF-2005 as well which suggests that at the end of secondary grade the students should have the ability of using English language not only for English as a subject but for all the subjects and activities across the curriculum as well. The mean value 2.25 and the negative response of 73% of the respondents suggest that the respondents are of the view that the students are not fully able to use English across the curriculum.

The third statement in the questionnaire attempted to know whether the existing syllabus helps in developing all the four language skills i.e. listening, speaking, reading and writing. This is an important objective focussing on the learning of all language skills. The data reflects that 61.5% respondents feel that the syllabus does not focus equally towards all the language skills whereas 19.9% respondents were neutral to this statement and almost the same number of respondents feel positively about the accomplishment of all these language skills when the students pass secondary grade. The mean value is 2.48 which indicates towards a negative perception of teachers towards this statement.

The fourth statement deals with the development of interest and understanding of literature through the material provided to the students. The mean value 2.58 indicates that the most of the respondents feel that the literature portion of the syllabus fails to develop students' interest towards literature. More than 60% of the respondents are found to be negative about this aspect whereas around 28% respondents feel positively about this aspect of the syllabus.

The next statement tried to know their viewpoint about the learning and revising the sentence and grammatical structures which they have already come across in the classroom. The low mean value of 2.36 indicates the teachers' dissatisfaction towards the learning of grammar and structures through the existing syllabus. Only 15.8% of the respondents have positive view about this aspect of the syllabus.

The sixth statement tries to understand whether the content given in the textbooks is adequate for understanding meaning, interpretation and reading beyond the text. The mean value is 2.77 suggests that the teachers feel that the students have a limited exposure towards meaning-making beyond the textbooks. 25.1% of the respondents were not sure about it whereas 28.9% agreed that the textbook content promotes meaning, interpretation and reading beyond the text. However, 45.9% of the respondents did not agree to this assumption.

The seventh statement in the questionnaire inquires about the cultural heterogeneity in the content to develop understanding and skills to adapt to different cultures. With μ=2.62 and 53.5% of the respondents being in the disagree and strongly disagree columns, it seems that the teachers feel that the textbooks need a better variety in the literary part provided. Around 24% teachers agreed to this proposition.

The next statement is related to the exposure to the students to use grammatically correct English language in a day-to-day life. The mean value of 2.33 suggests that the respondents feel that there is a lack of exposure to the students in respect of the correct grammatical use in

the day-to-day life. 64% of them responded negatively about this aspect whereas 23.8% of the respondents have been found to be neutral.

Statement no. 9 attempted to know whether the syllabus has suitable content to develop creativity among the students or not. The mean value of 2.76 is indicative of a need of improvement in this area. Around 43% of the respondents feel that creativity has a great scope for improvement in the existing syllabus.

The questionnaire has two statements regarding the second dimension of syllabus i.e. course calendar which means the provision of sufficient time to cover the topics as per the periods allotted by the CBSE and to carry out all the activities to develop students' language skills. The data reflects that 46.7% of the respondents have reported that the CBSE calendar does not provide enough time to cover the whole syllabus along with the activities. The mean values for both the statements are 2.71 each which substantiate the view of the respondents in this regard. The data reflects that the teachers feel that there is need of better planning while preparing the course calendar for the content and activities.

Regarding the parameter of methodology, there are four statements in the questionnaire which inquire about the multimedia, visual, digital, and online support in the syllabus to understand the teachers' perception about the provision of modern-day learning tools in the syllabus. In response to the statement no. 12 of the questionnaire on the provision of enough multimedia support in the syllabus to make understanding of the topics/chapters easier, 7.4% teachers strongly disagreed and 51.6% teachers disagreed with a mean value of 2.49. The mean values show that there is a limited scope for the use of multimedia tools in the syllabus.

Regarding the statement on the provision of enough visual support such as images, maps, graphs help students understand the topics in an interesting way, the respondents stated that the textbooks lack in enough visual support in different forms. The mean value 2.69 indicates that

the teachers are of the view that the textbooks have insufficient visual support for the learners. Around 48% of the respondents believe that the textbooks do not have appropriate or sufficient visual material to make the learning easier and more interesting. The data shows that the visual appeal of the textbooks needs to be improved for better comprehension of the content and for arousing the interest of the students in the text.

The next statement is regarding access to the digital and online platforms for better understanding of the contents. Interestingly, the mean score is 3.01 which suggests a mixed opinion in this regard. 38.8% of the respondents are negative about this aspect of the syllabus whereas on the other hand, 40.1% of the respondents feel otherwise. The data seems equally poised in this regard.

The next statement is about the inclusion of the learning tools such as email, blogs, writing and posting on social media platforms, etc. for developing the writing skills. It tried to understand the respondents' views about the inclusion of the latest writing skills in the syllabus. The mean value of 2.87 and the negative responses of 43.7% of the respondents denote that there is scope for inclusion of such skills in the syllabus for keeping the students up-to-date as regards the latest writing skills.

The next parameter of syllabus which has been tested is evaluation. The statements under this parameter attempted to know the teachers' perception about the different dimensions of evaluation such as holistic evaluation, evaluation of communication skills along with the memory skills, evaluation of creativity and critical thinking skills, and the evaluation of application of the knowledge gained in the subject. The first statement under this parameter tried to understand the respondents' view regarding whether the existing system of evaluation allows the teachers to test the students' performance in a holistic manner or not. The mean value 3.09 suggests a positive attitude from the teachers substantiated by 44.5% positive

response from them in this regard. It reflects that they feel that the system of evaluation allows the evaluation of all the language skills of the students. However, the responses to the next five statements show that the teachers are negative about the evaluation of different skills when asked in isolation. Regarding the next statement on evaluation of application and expression along with the memory skills, 59.6% teachers believed that the existing system of evaluation does not evaluate the application and expression parts along with the memorization of concepts with a mean value of 2.51.

The evaluation of the proficiency of using English language for oral communication purposes has been focused upon in the next statement. The mean value 2.54 along with 53.8% of the respondents' negative response towards this facet of evaluation shows that the existing system of evaluation has inadequate procedure for testing the communication skills of the students. The statement no 19 and 20 were about the evaluation of creativity and critical thinking skills. The mean values 2.48 and 2.52 respectively indicate that they feel that system of evaluation has insufficient provision for testing the skills of creativity and critical thinking.

Regarding statement no. 21, 57.6% of the respondents felt that the application of the knowledge gained in the classroom is not effectively tested currently. The mean value 2.48 substantiates the viewpoint of the respondents. Only 19.7% of the respondents are positive about this dimension of evaluation.

Finally, the questionnaire had statements on Part B which dealt with the aspect of inclusion of multimodality in the syllabus. There are total nine statements out of which the first eight try to elicit teachers' views on the different benefits of multimedia, digital resources, multimedia and computer-supported instructional tools and their benefits for the students and teachers. The first two statements ask whether multimedia and digital resources can help in making teaching and learning more interactive and more interesting. 44% respondents agreed and 36.9%

respondents strongly agreed to the first statement with μ=4.07. In the same way, 38.5% respondents agreed and 44.8% respondents strongly agreed with μ=4.16 to the second statement. These values show that the teachers are positive about the assumption that the multimedia and computer supported instructional tools can be very helpful in making teaching and learning both interactive and interesting.

The third statement under IMS tried to elicit the teachers' opinion about the extent to which these tools can help the weak students learn better. The mean value is 4.03. 39.1% of the respondents agreed and 36.9% strongly agreed to this statement. The values are significant and show that the respondents are positive about the proposition that use of technology and multimedia assisted tools can bring in positive results for the weak students in a heterogeneous setup.

Regarding the statement number twenty-five in the questionnaire which probed about the assistance that the multimedia computer-supported instructional tools can provide to the students to have an international perspective. 38.3% teachers agreed and 35.2% strongly agreed to this statement. The mean value is 3.96. Only 9.9% of the respondents feel negatively about it. The next statement tries to understand whether multimedia computer-supported instructional tools make comprehension easier or not. Majority of the respondents are positive about it with 42.9% agreeing and 36.3% of them strongly agreeing with a mean value of 3.96. It reflects that the teachers feel that through the use of these tools, the students will be able to comprehend the difficult concepts in an easier manner. The next statement similarly asks about the extent to which multimodal tools can help the students learn faster. The responses are significantly positive with 44.8% of the respondents agreeing and 33.6% of them strongly agreeing to this assumption. In total 78.4% respondents agree with the mean value of 4.06. The values clearly signify that the teachers feel that the digital and multimedia tools can help the students learn the concepts faster.

Statement no. 28 tries to understand whether computer-supported tools make concept application easier. The mean value is 4.5 and the 49.5% and 31.1% respondents agree and strongly agree respectively with a total percentage of 80.6% respondents. The data shows that majority of the respondents feel that concept application can be facilitated through the use of multimedia tools.

In response to the next statement on the use of multimedia computer-supported instructional tools in arousing people's curiosity, 81.2% of the respondents have responded positively with mean value of 4.07. It clearly indicates that these tools are highly beneficial in making students curious about the different concepts that the teachers want to teach in the classroom as these tools have access to most senses of the students.

The last statement of the questionnaire has an important proposition of inclusion of multimedia in the syllabus for helping the students in enhancing their understanding of concepts and for developing their critical thinking. In response, 36.6 teachers agree and 39.9% of them strongly agree making it a cumulative percentage of 76.5 which consists of more than two third of the respondents. The mean value is 4.07 which is highly significant to support this argument.

The descriptive findings indicate the higher and lower values of mean and SD for the statements. The range of mean values from 2.25 to 4.16 moved high. The CITC and CIAD were found suitable for further analysis (Lunzaga, 2019). During descriptive analysis, selection of statements was done on the basis of the CITC value (table 4.6). Initially, 32 statements were considered for the survey. After going through CITC, it was found that two statements ('The existing syllabus provides enough exposure to the students in the form of activities, online platforms, multimedia devices, and visual resources.' – 0.056 and 'The existing syllabus has appropriate content to develop critical thinking skills among students.' – 0.029) had less value which was not under acceptance range. Hence, these two statements were excluded for final analysis. Finally, 30 statements were considered in EFA for final analysis such as correlation, t-test, etc.

The data was analysed for reliability, validity, and construct/component development. For construct development, EFA was used and findings are given below for the same.

In order to determine the number of dimensions or latent variables in the data and to determine the validity of the instrument, Exploratory Factor Analysis (EFA) has been used. According to Haig (2005) EFA is considered as "a method for postulating latent variables which are thought to underlie patterns of correlations" (p. 303) by most of the factor analytic methodologists. SPSS version 26.0 has been used for performing EFA in this study. KMO and Bartlett's test of sphericity have been run to check the suitability of sample size and the correlation among the different items in the questionnaire (Hadi et al., 2016). One of the most commonly used method is known as 'Eigen-value rules' or the 'Kaiser's criteria' under which components with eigen-values larger than 1 are retained (Hadi et al., 2016). Although as per the rule, eigen-values higher than 1 are to be retained but it may result in arbitrary decisions and may not be recommended due to its deficiencies (Ledesma & Pedro, 2007). Hence, eigen-values higher than 3 have been extracted and retained for the factor determination in this study.

In addition to parameter (construct/variable) development, the values of correlation matrix (table 4.4), KMO (table 4.5), Bartlett's test (table4.6) during EFA assessed the validity of the instrument. As these values were under acceptable range, the instrument and the data confirmed validity; whereas the α value was found to be 0.738 which was also under acceptable range. Thus, it was found that instrument possessed both reliability and validity.

The suitability of the factor model was determined by investigating the strength of the relationship among the parameters (variables): Objectives & content, Calendar, Methodology, Evaluation and IMS. Correlation matrix, Bartlett's test of sphericity, and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy are the three measures recommended in the literature for determining the strength of relationship before carrying out the factor analysis (Yong, 2013).

KMO measure of sampling adequacy has been used to "yield a qualitative index of the strength of relationship among variables based on zero-order and partial correlations" (Matore et al., 2019, p. 235). Bartlett's test of sphericity has been performed for estimating the degree to which the intercorrelation matrix produced is an identity matrix. KMO value is 0.87 which is well above the accepted value i.e. higher than .5 (Field, 2013). Similarly, determinant of R-matrix is important for detecting multicollinearity. "One heuristic is that the determinant of the R-matrix should be greater than 0.00001" (Field, 2013, p. 1015). The determinant value of the questionnaire data is 0.897 which is greater than 0.00001 which makes the data fit for performing EFA.

Principal Component Analysis (PCA) has been used for extracting the variables from the data set. "PCA is a famous multivariate approach that converts several correlated variables into several linearly uncorrelated variables named principal components" (Mahmoudi el al., 2021, p. 2). Orthogonal VARIMAX rotation has been used for classification of the items as per their respective factors.

The EFA (table 4.6) has been used to identify and determine the number of dimensions/ parameters of syllabus design to be used in the further study. The statements of the questionnaire were framed around the five parameters of syllabus design identified through the literature review i.e. course objectives, content, course calendar, methodology, and evaluation. The EFA establishes that the teachers perceive them as four instead of five parameters of syllabus and one as IMS. Hence, the latent variable which combined the items under the categories of course objectives and course content has been renamed as 'objectives and content'. Therefore, total five parameters (table 4.6) have been identified in the present study as per secondary grade teachers' perception.

Table 4.4 Correlation matrix determinant of factors

Correlation Matrix(a)a. Determinant = 0.897

Table 4.5 KMO and Bartlett's Test of factors

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.870805
Bartlett's Test of Sphericity	Approx. Chi--Square	6562.47
	df	435
	Sig.	0.000

Table no. 4.6 Factor loadings of the parameters of Syllabus and IMS as per teachers' perception using EFA

Statement	Variables						
	IMS	Objectives & Content	Evaluation	Methodology	Calendar	CITC	SMC
Multimedia supported instructional tools help the students learn faster.	0.91					0.34	0.82
Inclusion of multimedia can improve the syllabus and help in enhancing the understanding of concepts and develop critical thinking among students.	0.89					0.33	0.81
Multimedia computer-supported instructional tools make comprehension easier.	0.89					0.26	0.81

Statement			
Multimedia computer-supported instructional tools help students to have an international perspective.	0.88	0.27	0.81
Multimedia computer-supported instructional tools make concept application easier.	0.87	0.27	0.81
Multimedia and digital resources can help in making teaching and learning more interesting.	0.85	0.25	0.85
Multimedia instructional tools help the weak students learn better.	0.85	0.29	0.77
Multimedia computer-supported instructional tools arouse people's curiosity.	0.84	0.23	0.75
Multimedia and digital resources can help in making teaching and learning more interactive.	0.63	0.15	0.65
enables the learners to communicate effectively and appropriately in real-life situations	0.79	0.28	0.58
The existing syllabus has suitable content to develop creativity among students.	0.76	0.36	0.60
The existing syllabus gives them enough exposure to understand and use grammatically correct English language in a day to day life.	0.74	0.25	
The existing develops interest and understanding of literature.	0.70	0.29	0.51
all the four language skills i.e. listening, speaking, reading and writing.	0.70	0.18	0.58

Statement			
The existing _____ enables the learners to use English effectively for study purposes across the _____ .	0.68	0.25	
The existing _____ makes it easy for the students to revise sentence and grammar structures already learnt.	0.62	0.17	0.45
The content given in the textbooks is adequate for understanding meaning, interpretation and reading beyond the text.	0.61	0.26	0.42
The existing syllabus has adequate content to develop understanding and skills to adept to different cultures.	0.60	0.12	0.49
The existing system of evaluation tests the proficiency of using English language for oral communication purposes.	0.85	0.33	0.67
The existing system of evaluation tests creativity among students.	0.81	0.31	0.55
The existing syllabus tests critical thinking among the students.	0.79	0.29	0.57
The existing system of evaluation examines not only the memory skills of the students but the application and expression parts as well.	0.77	0.29	0.48
The existing syllabus tests application of the knowledge gained in the subject among the students.	0.73	0.34	0.42
The existing system of evaluation allows the teachers to test the students' performance in a holistic manner.	0.42	0.22	0.30

Item			
The existing syllabus includes the learning tools such as email, blogs, writing and posting on Wikispace and using kahootz, etc. for developing the writing skills.	0.83	0.25	0.50
The textbooks in the existing syllabus have enough visual support such as images, maps, graphs help students understand the topics in an interesting way.	0.80	0.21	0.45
The existing syllabus provides access to digital and online platforms for better understanding of the contents of the course	0.73	0.26	0.32
The existing syllabus has enough multimedia support to make an understanding of the topics/chapters easier for the students.	0.39	0.12	0.20
The existing syllabus gives adequate time to cover the topics as per the periods allotted by the CBSE.	0.86	0.10	0.34
The allotted time is enough to carry out all the activities to develop students' language skills	0.85	0.14	0.33

"Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization."

Cumulative Variance (CV)= 65.54%; Reliability=.738

CITC= corrected item total correlation; SMC= Squared multiple correlation

After classification of concepts of teachers' characteristics, there was a need to assess the level of these characteristics and how they interplayed with each other. Therefore, starting with descriptive statistics, the study proceeded with correlation analysis.

After analysing the meaning, understanding, and perception of secondary grade teachers about parameters of syllabus and IMS, it was also important to find the teachers' level of understanding of the different parameters of syllabus. It meant how teachers rated the performance of the parameters of syllabus and their knowing the level of knowledge of these parameters. Therefore, the table below (4.7) presents the descriptive analysis which sheds light on the perception part of the teachers.

Table 4.7. Descriptive Statistics (Categorisation) of the parameters of Syllabus and IMS

Parameters	N	Minimum	Maximum	M	S.D.
Objectives & Content	366	10	40	22.7158	6.12617
Calendar	366	2	9	5.4317	1.44468
Methodology	366	5	19	11.082	3.07867
Evaluation	366	6	27	15.6448	4.49103
IMS	366	9	45	36.5273	7.28203

N= no of participants, M=Mean, S.D.=standard deviation

Table 4.7. shows the values of each parameter of syllabus and IMS. The first parameter of Objectives & Content had $\mu=22.71$ and SD=6.12 which is greater than the parameters of calendar, methodology, and evaluation with mean values of 5.43, 11.08, and 15.64 respectively, meaning that the teachers are more favourable towards this parameter than the other parameters of syllabus. All the mean values of all the parameters are exact average values which means that they are not moving towards upper direction. It means that most of the teachers have disagreed with all these parameters. Their perception is not high towards these parameters; they are not much positive about them. The high mean values of IMS i.e. $\mu=36.52$

reflects a positive understanding of this assumption by teachers. It also shows the difference in the perception of teachers between the parameters of syllabus and IMS.

To understand the views of the teachers in a graphical manner, a divergent stacked bar chart has been created. This bar chart has a summary of the percentage of responses to the parameters of syllabus design and IMS (Figure 4.13).
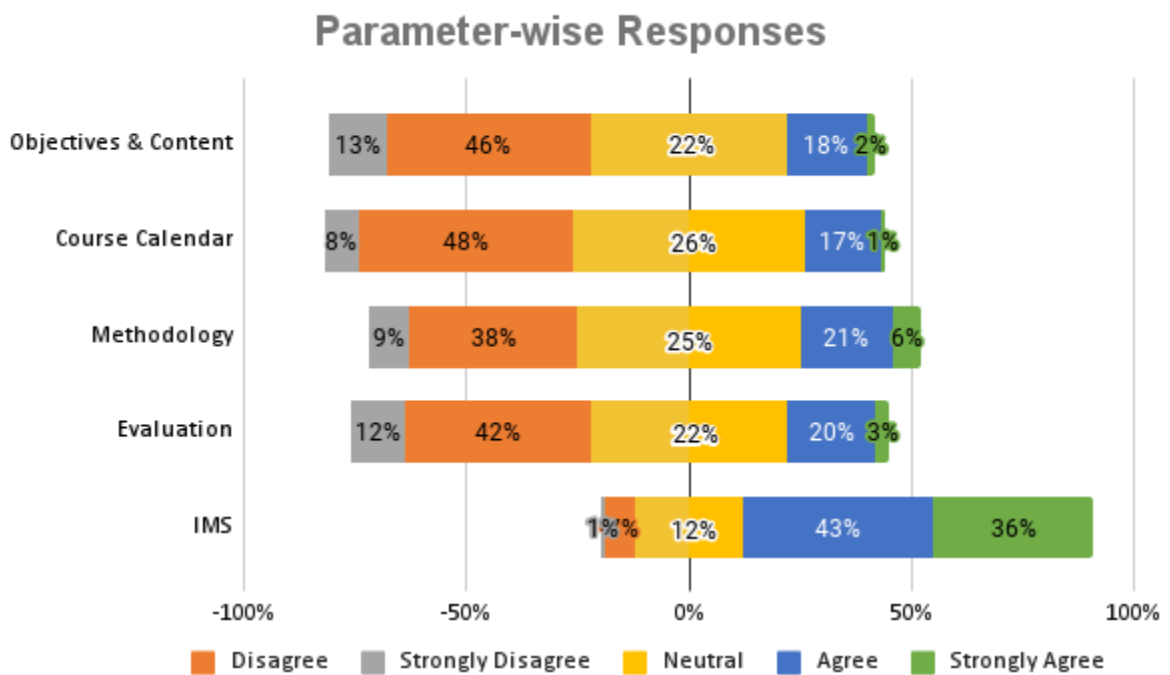

Figure 4.3 Parameter-wise Responses

The above bar chart (Figure 4.3) clearly shows shift in the opinion of the teachers about the efficacy of the existing syllabus and about the inclusion of multimodality in the syllabus. The chart reflects that the teachers are negative about the different parameters of syllabus design whereas they are positive about the aspect of IMS. If we look at the data cumulatively, we find that the respondents feel that the inclusion of multimodal tools can prove useful for the teachers towards improving the learning quotient of the students.

c. R.Q. Is there any relationship among the constructs/variables of syllabus and multimedia tools as per teachers' understanding?

4.2.4 Correlation Analysis

As discussed in the Literature Review, the current study focuses on the five main parameters of the curriculum i.e. course objectives, course content, methodology, calendar and evaluation. The EFA has produced only 4 parameters of syllabus rather than 5 as mentioned in the literature review. The first parameter has been renamed as 'objectives and content' for the present study. The study also focuses on the aspect of IMS as part three of the questionnaire that tries to understand the benefits of inclusion of multimodality into the curriculum. The study has evaluated the correlation among the parameters of the syllabus and their correlation with the aspect of IMS (Inclusion of Multimodality in the Syllabus). Fernando (2021) defines correlation coefficient as

> "a statistical measure of strength of the relationship between the relative movements of two variables. The values range between -1.0 and 1.0. A calculated number greater than 1.0 or less than -1.0 means that there was an error in the correlation measurement. A correlation of -1.0 shows a perfect negative correlation, while a correlation of 1.0 shows a perfect positive correlation. A correlation of 0.0 shows no linear relationship between the movement of the two variables" (para 1).

The correlation among the different variables (parameters of the syllabus); and between the parameters and IMS was found to be moderate to significant. Pearson's correlation coefficient has been used for testing the relationships among the above-mentioned parameters with the normally distributed data of the questionnaire (Schober, Boer & Schwarte, 2018). Similarly, correlation between the parameters of syllabus design and IMS has also been tested.

Table 4.8. Correlation in Parameters of Syllabus and IMS

Variables	Objectives & Content	Calendar	Methodology	Evaluation	IMS
Objectives & Content	1				
Calendar	.135**	1			
	.010				
Methodology	.077	.017	1		
	.141	.742			
Evaluation	.010	.050	.138**	1	
	.846	.337	.008		
IMS	-.397**	-.058	.011	.048	1
	.000	.265	.837	.356	

**. Correlation is significant at the 0.01 level (2-tailed).

As mentioned in chapter no. 3, correlation values range between -1.0 and 1.0. A correlation of -1.0 shows a perfectly negative correlation and a correlation of 1.0 shows a perfectly positive relationship. The correlation matrix in table no. 4.8. shows that most of the parameters of syllabus design have a moderate to strong positive correlation amongst themselves. The parameter of course objectives and content has a significant correlation with the parameter of calendar with r=.135; and the parameter of evaluation also has a significant positive correlation with methodology with r=.135. The parameter of objectives and content has a significant negative relationship with the aspect of inclusion of multimodal tools in the syllabus with r=-.397. This negative relationship reflects that the data is not moving towards the same direction and as the teachers have a negative attitude towards the parameter of objectives and content. The negative value shows that the respondents are positive towards the inclusion of multimodal tools. They feel that it will help in achieving the objectives and will improve the quality of content.

The correlation among the other parameters of syllabus has not been found to be significant. It can only be called a moderately positive correlation. The data reflects that the correlation between the objectives and content and methodology and evaluation is moderately positive with r=.077 and r=.010 respectively. The parameter of course calendar also has a moderate correlation with the parameters of methodology and evaluation with r=.017 and r=.050. Likewise, the correlation between the parameters of methodology and evaluation has been found to be positively moderate with r=.138. All these values of relationship reflect that the parameters of syllabus design are positively inter-related and have impact upon each other in a positive manner. For example, the course objectives are achieved only if all the other parameters of syllabus get adequate attention. All these parameters are highly important in achieving the learning outcomes for the course. The data suggests a negative correlation between IMS and the parameters of objectives & content and calendar with r=-.397 and r=-.058. However, the correlation between IMS and the parameters of methodology and evaluation have been found to be positively moderate with r=.011 and r=.048. The data shows that only two pairs of syllabus parameters have significant positive correlation i.e. between objective & content and calendar, and between methodology and evaluation; and one pair has a negative significant correlation i.e. IMS and the parameter of objectives and content. Most importantly, the correlation between objectives & content and IMS is above average and significant though negative. This indicates that they are not moving in same direction and not consistent with each other. This indicates that the teachers are of the opinion that the syllabus has not been yielding expected results and they feel that the inclusion of multimodal tools in the syllabus help in achieving the learning outcomes by making the teaching and learning more comfortable, interesting and easily-accessible to the students.

The range of mean values of the five parameters are in the range of 2.52 to 2.77 which explains a negative perception of teachers towards the achievement of course objectives through the

different parameters of syllabus. On the other hand, the mean value of 4.05 for IMS suggests a positive perception of teachers towards the integration of multimodality in the syllabus. Mean values and frequencies have been discussed at length in the following section to understand the perception of teachers towards all the statements to which they responded.

d. R.Q. Is there any difference among the constructs/variables of syllabus and multimodal tools as per teachers' understanding?

4.2.5 Analysis of Difference between the parameters of syllabus and IMS

In order to answer the research question whether there is any difference among the constructs/variables of syllabus and multimodal tools as per teachers' understanding, paired samples t-test has been performed. Paired samples t-test is performed to compare the mean scores of two matched/paired groups of people or cases and to establish whether two means collected from the same sample differ significantly (Ross, 2017; Field, 2013). For conducting the paired samples t-test, pairs of the mean values of parameters of syllabus have been created and compared (refer table no. 4.9).

Table no. 4.9 Paired Sample T-test Syllabus Parameters and IMS

	Pair (variables)	M (diff)	SD	t	df	sig.
Pair 1	Objectives & Content-Calendar	17.28	6.10	54.19	365.00	0.00
Pair 2	Objectives & Content - Methodology	11.63	6.64	33.52	365.00	0.00
Pair 3	Objectives & Content - Evaluation	7.07	7.56	17.90	365	0.00

Pair 4	Objectives & Content - IMS	-13.81	11.23	-23.54	365.00	0.00
Pair 5	Calendar - Methodology	-5.65	3.38	-32.00	365.00	0.00
Pair 6	Calendar - Evaluation	3.04	1.65	35.16	365.00	0.00
Pair 7	Calendar - IMS	-31.10	7.51	-79.25	365.00	0.00
Pair 8	Methodology -Evaluation	-4.56	5.08	-17.18	365.00	0.00
Pair 9	Methodology - IMS	-25.45	7.88	-61.81	365.00	0.00
Pair 10	Evaluation - IMS	-20.88	8.37	-47.74	365.00	0.00

The table above shows the results of the paired samples t-test performed on the paired mean scores of different parameters of syllabus and IMS. The p values of all the pairs have been found to be below .05 which suggests that all the values are significant and establish that teachers perceive all the parameters of syllabus differently than others. However, the difference in the mean values of different pairs reflect their perception about all these parameters. In the first three pairs, they are more positive towards the parameter of objectives and content than the parameters of calendar, methodology and evaluation with M (diff) values of 17.28, 11.63, and 7.07. There is not much difference between the M (diff) values of calendar and evaluation with M (diff) 3.04. However, it shows that the teachers perceive course calendar more positively than evaluation. The M (diff) value of -4.56 suggests that the teachers are more positive towards the system of evaluation than methodology. Teachers have shown a significant positive attitude towards the aspect of IMS over all the parameters of syllabus design which suggest that the teachers feel that IMS can really be very beneficial in included in the syllabus. The M (diff) values of -13.81, -31.10, -25.45, and -20.88 between IMS and the parameter of

syllabus i.e. objectives & content, calendar, methodology and evaluation respectively reflect that the teachers have shown a significantly positive attitude towards the inclusion of multimodal tools in the syllabus.

4.3 Part 2: Analysis of Qualitative Data

To further understand teachers' perception towards the syllabus of English and inclusion of multimodal tools in the syllabus, qualitative approach for analysis has been used.

Research Questions

R.Q. What is teachers' understanding towards the syllabus of English?

R.Q. Do teachers think that the Multimodal tools will be helpful in improving the students' learning of English?

R.Q. What is teachers' perception about the inclusion of multimodal tools in the syllabus?

This part of the study deals with qualitative analysis of teachers' perception towards the syllabus and IMS. Understanding this would enable to corroborate the above findings and to know what exactly teachers understand and perceive about the syllabus and IMS.

To answer the research objectives of the study, interview has been used using semi-structured schedule comprising 32 respondents keeping in mind the fact that such interviews can provide in-depth details and information about different questions which were beyond the scope of quantitative study. Interviewing is a basic mode of inquiry (Seidman, 2006). The researcher has tried to delve deeper to know more about the efficacy of the parameters of syllabus and the proposition of IMS. To achieve this objective, interviews have been conducted. Average time taken by the interviews is 58.23 minutes. Codes, themes and sub-themes have been extracted

after transcribing the interviews. To code the interviews, the coding scheme was expanded inductively by identifying the codes and themes in the interviews to reach a theory.

All interviews were coded by one rater and tested by two raters to establish the reliability and avoid the biasedness. To establish the objectivity of the coding scheme, the interviews were tested for the inter-rater reliability, which could be interpreted to prove objectivity of the used coding scheme. Inter-rater reliability analysis using kappa statistics has been performed to determine consistency among the raters (see table no. 4.10). The raters were provided with the list of codes along with the objectives of the study which they either accepted or rejected.

Table 4.10 Reliability Statistics (Cohen's Kappa)

		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Measure of Agreement	Kappa	.66	.062	8.986	.000
N of Valid Cases	178				

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

Raters have agreement on 87.7% of the codes. Cohen's Kappa Coefficient of reliability value has been found to be .66 which is considered as a good level of inter-rater reliability. According to Warrens (2015) kappa value of "0.00 - 0.20 indicates slight agreement, 0.21- 0.40 fair agreements, 0.41-0.60 moderate agreement, 0.61-0.80 substantial agreement, and 0.81-1.00 indicates almost perfect agreement" (p. 1).

Thus, the thematic analysis emerging on the basis of these codes is reliable and not out of frame. Thus, the next section deals with the thematic analysis (table 4.11) of teachers' perception of inclusion of IMS.

Table 4.11 Parameter-wise Themes and Sub-themes

Parameter	Themes	Sub-themes
Objectives & Content	Speaking Skills	• Lack of environment
		• Lack of focus on language
		• Removal of Communicative Syllabus
	Reading Skills	• Lack of interest in reading
		• Lack of interesting material for reading
		• Use of ICT
	Writing Skills	• Grammatical Accuracy
		• Use of Social Media language
		• Lack of seriousness
		• Language needs more attention than literature
	Listening Skills	• Reduction in weightage of ASL
		• Need of proper implementation of ASL
		• Need to establish libraries in schools

Category	
	● Use of ICT
	● Provision of more periods for ASL preparation and test
Quality of content in textbooks	● Less effective books than communicative syllabus
	● Substandard content
	● Substandard poems
	● Lack of interesting content
	● Suitable for less equipped schools
	● Too many chapters
	● Lack of enough content and practice material for grammar
Revision of textbooks	● Not as per the level of students
	● Not revised for a long time
Proportion of time towards different skills	● Too much time towards teaching literature
	● Not much time for other skills
Calendar	● Faulty calendar: Specification of periods
	● Cumbersome syllabus

Category	Points
	• Lack of time to teach grammar and language due to literature
Methodology Digital and online support in the syllabus	• No support as compared to communicative textbooks • Lack of Activities and material • No questions in the exam on new patterns of communication
Visual Support in textbooks	• Not enough quantity of pictures • Quality of pictures • Adult learners: No requirement of too many pictures • Better quality in Private publishers' books
Evaluation	• Marks-oriented teaching and learning • Need of balanced approach towards awarding marks (too lenient marking) • ASL-Practical implementation required • Faulty internal assessment • Implementation of policies
Benefits IMS	• Beneficial for teachers and learners • Interesting and promotes faster learning

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- Connects students and teachers
- Will improve the quality of syllabus
- Will benefit slow learners

Limitations
- Lack of infrastructure in India
- Affordability
- Connectivity issues
- Teacher training
- Reach of resources
- Interest of Government

Feasibility
- Need to start the process
- Need to orient the syllabus in a phased manner
- Allotment of funds to bring the rural schools abreast with more resourceful schools
- It is time-taking but necessary
- Teacher-training at large scale

As shown in the above table (Table 4.11), different themes have emerged from the different pre-defined parameters of syllabus. The themes which have been identified from the parameter of objectives & content are 'communication skills', 'reading skills', 'writing skills', listening skills', 'quality of content in textbooks', and 'revision of textbooks'.

4.3.1 Objectives & Content

4.3.1.1 Speaking Skills

Many of the respondents have reported that students do not have adequate command over English communication skills even after completing their secondary grade. When asked about the reasons, they enumerate several reasons such as the lack of environment in the schools and at homes. They have also reported that improvement of speaking skills does not get the focus and attention which it needs to be paid. When asked about the acquisition of speaking skills, R13 stated "many of the students are not able to communicate well even after qualifying class X. This is because they are not provided appropriate environment in the schools" There is not enough focus on the language part and most of the time is spent in teaching the literature part and completion of syllabus (R7). Some of the teachers feel that due to the removal of communicative syllabus, the focus has shifted from communicative proficiency to literature. R28 mentions "for last two years, language and literature syllabus has been introduced. I don't feel this syllabus fulfils the need of English communication skills. Actually, there was a lot of scope for communicative skills in that syllabus".

4.3.1.2 Reading Skills

Regarding reading skills, most of the teacher-respondents feel that the students are losing interest in reading. There are several reasons listed by them for this phenomenon. First, they opine that the reading material provided in the textbooks in not interesting enough to attract the attention of the students in this cyber age when they have so many kinds of texts already

surrounding them. According to R11, "if you look at the chapters provided in the textbooks, there are too many chapters but if you want to look for quality reading material, you will fail to find many chapters. Even while we teach in the classrooms, we do not find many of these chapters interesting enough". When asked about how the students' interest in reading could be generated, teachers feel that the quality of the content needs to be enhanced by making a good selection of excerpts, stories, poems, and other teaching material to be included in the textbooks. A few teachers recall the chapters in the communicative syllabus while talking about it and find the communicative syllabus more interesting and challenging for the students. "The chapters in the books are too easy and are not at all standardised. Though they are good for the slow learners but many students do not find them interesting" (R4). R18 claims "Now, the communicative syllabus has been removed and Course B has been introduced which is of course, less challenging. I would always prefer communicative syllabus because it provides better scope for doing so many things in the classroom"

A suggestion as posed by them is the use of ICT tools in and outside classrooms for making interesting reading material easily accessible to them. R17 states that "the students are surrounded by technology once they leave the gates of the school; hence they are attracted by technology more than the books. If we could provide them good reading material using internet and such platforms, I think it would work as a moving library for them".

4.3.1.3 Writing Skills

Writing skills play a vital role in the scheme of studies as students are judged for marks on the basis of their writing skills primarily. During the interviews, it was reiterated by some of the teachers that students have lost the seriousness towards writing skills as the students used to have in the pre-digital era. In the same line, teachers feel that grammatical accuracy is a grey area which needs to be addressed. When the students write, they tend to commit grammatical

mistakes and are not serious towards rectifying them. The teachers have also stated that there is lack of scope for the practice of writing skills as the textbooks do not provide adequate practice material for the writing skills asked in the exams. A close examination of the textbooks reveals that the textbooks do not even touch the Business letter writing at all though it has a weightage of 8 marks in the exam. They also report that the students have started using WhatsApp language and social media shortcuts while writing in the exams. It shows the growing impact of social media on their writing skills. In the words of R24 "It's challenging for us because CBSE has prescribed writing skills such as formal letter, business letter and story writing but there are not many questions and activities in the books for practising these skills". Regarding the use of WhatsApp language and social media shortcuts, R10 reported

> It has been growing year after year that the students use WhatsApp and social media language. They use the expressions like 'LOL' for 'Laugh out loud'; 'BTW' for 'By the way', 'OMG' for 'Oh my God!', etc. It becomes challenging for us to decide whether to accept or reject such a deviation in the language.

The data reflects that social media has impacted the psyche of the students to an extent where it has started reflecting their formal expressions as well which needs to be understood keeping in mind the changing patterns of communication and appropriate academic plans may be initiated in this regard.

4.3.1.4 Listening Skills

The interview data reflects that teachers feel that there has been a growing consciousness in the schools under CBSE towards listening skills which is seen after the introduction of ASL (Assessment of Listening and Speaking). However, they also feel that the reduction in the weightage of ASL has relegated the gravity which was earlier attached with this test. Talking

about this phenomenon, R28 comments "CBSE had introduced a very good test which had made everybody thoughtful and serious about both listening and speaking skills. But as the weightage has been reduced from 20 to 5, not many schools are conducting these tests properly". It seems that the factors such as improper implementation of ASL and the reduction in the weightage of ASL have affected the learning of the language adversely. The data substantiates the study by Singh & Choudhary (2015) where they recommend "adequate coverage and integration of all four basic language skills" in the textbooks of secondary grade" (p. 45). The respondents feel that the reduction of weightage in the ASL marks may hamper the learning of this skill in the scheme of studies. In this regard, R31 states, "I think that the weightage was reduced because of improper implementation of ASL as many schools had started awarding marks indiscriminately". As a suggestion teachers propose that there is a need of allotting adequate number of periods for the development of this skill among the students. They also suggest that the CBSE needs to ensure proper implementation of ASL rather than reducing its weightage or removing it from the syllabus. "CBSE has to think about making suitable system for ASL and more importantly, for the implementation of that system so that it doesn't crash like the present one" (R2).

4.3.1.5 Quality of Content

The interviewees highlighted several issues regarding the quality or standard of the content provided in the current textbooks. Most of the respondents are of the opinion that the chapters in the textbooks are too easy as per the level of the students. Although it makes it easy for the students to pass the exams but they are not much interested in the content in the books. The teachers have highlighted the fact that the poems in the books are substandard and are not stimulating and interesting to the students. R25 states, "if you have a look at the poems in the syllabus, you will find that hardly any poem arouses curiosity of the students and the language and the ideas presented also do not match the level of these students". There are others who

feel that the syllabus does not provide enough exposure and opportunities to hone the language skills of the students. One of the interviewees (R31) even compared the CBSE syllabus with the ICSE syllabus and said

"the CBSE syllabus does not provide much scope to the teachers to groom the children's language. The problem with the CBSE syllabus is that the CBSE is dealing with the basic things only even upto secondary and s. secondary levels whereas if you compare this syllabus with ICSE board syllabus, it is a complete course and syllabus because there is a lot for the teacher to do and learn in an ICSE syllabus that CBSE syllabus lacks".

Some of the respondents contended that the existing syllabus if fit for the less equipped schools and cannot be a suitable for all the students at secondary level in the country. They also added that the syllabus is cumbersome. R32 argued that "there are too many chapters to be taught in a year. The books should have quality content than quantity".

4.3.1.6 Revision of Content

Teachers also stated that the content needs to be updated as per the needs of the time and considering the fact that the textbooks were published in the year 2007 and since then, the textbooks have not been revised. R21 opined that "the chapters in the textbook need an upgradation with quality material". Dat (2008) also expressed his discontent with the course material developers in the South-East Asia and stated that the English textbook designers in the region have inadequate training in material development.

4.3.1.7 Lack of Practice Material for Grammar

Lack of content for practice of grammatical skills is another issue underlined by the teachers. When asked about the grammatical accuracy of the students, M31 referred to the textbooks and said "The existing books have hardly any practice material for grammar and writing skills and

the material which is there in the books does not match the type of questions asked in the exams". The data reflects that the textbooks need a revision to incorporate and integrate all the language skills as per the curriculum document as provided by the CBSE including the exercises and activities for the practice of writing and grammar.

4.3.2 Calendar

The theme which has emerged through the data is 'proportion of time towards different skills". The respondents assert that the time allocated for different skills is insufficient bearing in mind the number of topics and chapters to be taught along with different activities to be conducted in and outside the class. R14 claims "I must say, the time that the teachers get is not enough to do so many things in a single session. Just look at the number of chapters in the books. You shall find that the number of periods allotted for teaching these many chapters is not sufficient". Replying to the question on the completion of syllabus while carrying out activities to enhance students' language skills R18 reported that "the existing syllabus has too many topics to teach and is cumbersome. It really makes it challenging for us to complete the syllabus while conducting all the activities for improvement of language skills".

4.3.3 Methodology

Two themes have emerged from the parameter of methodology i.e. 'digital and online support in the syllabus' and 'visual support in the textbooks'. The researcher has tried to investigate the extent to which the syllabus and the textbooks provide reference to online and digital support to the students and teachers directly or indirectly. At the same time, the aspect of visual support in the textbooks and its adequacy has also been tried to be understood.

4.3.3.1 Digital and Online support

Regarding the aspect of the digital and online support in the syllabus, teachers observe that there is very limited digital and online support in the prescribed textbooks. According to them,

the textbooks of the existing syllabus do not have any reference to online or digital resources. Though they also remember the books in the previous communicative syllabus which had some links to the online resources for reference. The Literature Reader textbook of the Course A has a reference to a YouTube video for the poem "Not Marble nor the Gilded Monuments" by Shakespeare (CBSE, 2017 p. 98). However, this is the only chapter in the book in which reference to a YouTube video for proper recitation of the poem has been given. The textbook provides web addresses for several websites for further reading and support material for two chapters. The interviewees have also highlighted the fact that there are not many activities and material in the textbooks which promote or refer to the use of multimedia or digital resources and creation of multimodal texts. R7 mentions "The books do not have any such material as you are asking but I remember that several links of YouTube and online web addresses were provided at the end of the chapters in the Literature Reader of communicative syllabus". Another issue highlighted by them is that there are no questions on new patterns of communication such as emails, blogs, writing and posting and responding on social media, etc. "CBSE textbooks do not have such material which may promote these skills. Students are still practising the same writing skills which they used to learn fifteen years back" (R19).

4.3.3.2 Visual Support in the Textbooks

Another theme that has transpired through the data under the parameter of Methodology is visual support in the textbooks for which there was a mixed opinion among the respondents. Teachers believe that the existing textbooks lack in good quality visual support. They find that visual and graphical presentation in the books is qualitatively and quantitatively below standard keeping in mind the advancements in the printing technology. R31 remarks that "the books do have pictures and images but I feel that there is scope for improvement in the quality of the pictures. There are only a few pictures, most importantly, least use of pictures with the poems". On the other hand, some of the respondents feel that the pictures given in the textbooks are

sufficient for the students of secondary grade. "They are not tiny-toddlers who need to be taught everything with pictures. The students at this level are grown-ups who understand what is written; so, the basic focus should be towards language and quality content" (R10).

4.3.4 Evaluation

The researcher attempted to understand the perception of teachers regarding the efficacy of system of evaluation. Under this parameter, teachers have expressed a few concerns and have given some suggestions for some improvements in the system. First of all, they have expressed their concern about the approach towards awarding marks in the board examinations. Almost every teacher feels that students are awarded marks indiscriminately in the board exams which has, in turn, affected the psyche of the students making them less serious towards English as a subject. R13 stated, "there is a lot of difference between the approach with which marks were awarded several years back and the way they are awarded these days. Students have got a clear message that they are going to get good marks however they study". Another teacher (R19) suggested that there is need of a balanced approach in awarding marks. "I think CBSE needs to do some balancing act with the instructions to the examiners in this regard". The views of teachers substantiate what Mahajan (2020) stated in his article titled "CBSE must rethink its evaluation approach and have a system which encourages actual learning" in the Indian Express stating that "Inflating marks might make the parents, the students and the politicians feel good. But this race to the "top" is really a race to the bottom which will have long-term consequences" (para 10). Mahajan goes on to argue that the "evaluation process seems to have only one overarching goal — to ensure that maximum students pass and what is more, a large number of them score very high marks. This is ensured by an innocuously named system called "moderation". The CBSE resorts to the Moderation policy to:

- compensate the candidates for the difficulties which they face in solving the question in a specified time due to misinterpretation/ambiguity; compensate the vagaries to bring uniformity in the evaluation;

- level up the mean achievements in the set-wise performance of the candidates attributable to the difference in the difficulty level of different sets of question papers;

- maintain near parity of pass percentage of the candidates in the current year vis-a-vis preceding years, subject-wise and overall.

(CBSE Moderation Policy, n.d.)

A report published by CNBC TV18 (2020) also endorses the views of Mahajan (2020) and states, "Effectively every student who scored between 85 percent and 95 percent ended up getting 95 percent marks". Along with this issue, several teachers have reported the problems with the internal assessment including ASL. They have reported that many students are awarded marks indiscriminately in the internal exams including ASL inconsiderate of their performance thereof. According to them ALS has not been implemented well due to which its weightage has been reduced. R11 states that "This is certainly one of the grey areas in the examinations that schools send almost full marks to the board. They do so simply out of competition for better results". Mathews (2018) also stresses upon the use of ASL for the improvement of students' language skills. Mentioning the CBSE's departure from the earlier 20 marks' weightage to ASL to the present 5 marks' weightage, he states

"This is a departure from the CBSE's curriculum guidelines (CBSE 2017), which lay out 18 descriptive points to assess listening and speaking. This heavy imbalance between the assessment of different skills can have long-lasting effects on how well Indian learners acquire the language. In the

long run, our students might fail to develop listening and speaking skills

to acceptable levels" (Mathews 2018, p. 21).

The implementation of ASL is an important step which seems to be of great importance for the CBSE to examine and come out with a policy on it.

4.3.5 Inclusion of Multimodality in the Syllabus (IMS)

Since the final objective of this study is to understand the perception of teachers regarding the possibility of the inclusion of Multimodality in the syllabus. Hence, this study tries to understand whether the inclusion of Multimodality will have value addition in the secondary grade syllabus of English; the challenges and limitations in the way and to provide recommendations in this regard. Three themes have emerged from the data which are: 'benefits of multimodal tools', 'limitations towards using multimodal tools such as multimedia, digital and online tools in the country', and 'possibility of integrating multimodal tools into the syllabus'. As mentioned in the Literature Review, the countries such as Singapore and Australia have already assimilated multimodality into their syllabus wherein it is aimed that the students will learn the multimodal skills such as viewing and representing along with the already-established four language skills i.e. listening, speaking, reading and writing. For example, The Australian Curriculum-2010 also at ensuring the development of the skills of listening, reading, viewing, speaking, writing, and creating the multimodal texts (p. 4). In order to learn all these skills, the syllabus needs to play an important role by providing the material, activities and instructions. The quantitative and qualitative data support the argument of the incorporation of multimodal tools in the syllabus. Following are the themes as identified from the interview data in this regard:

4.3.5.1 Benefits of Multimodal Tools

Teachers have enumerated several benefits of the multimodal tools which support the results of the quantitative study. They feel that multimodal tools such as multimedia, visuals, use of digital and online platforms, audio, etc. will be beneficial for both teachers and students in many ways. They have enumerated several benefits of using these tools in and outside the classrooms. According to them multimodal tools help in creating interest for learning the subject. An important addition is that they help is connecting the students with teachers even in non-classroom situations. "I have used ICT and social media a lot during the Covid-19 pandemic and it has connected me with my students very well. Though it cannot be a substitute of the real classroom but it is very helpful in developing their understanding of the concepts using online and offline modes" (R12). A few interviewees highlighted the usefulness of these tools for the slow learners as these tools provide them information and knowledge through multiple sensory modes. Regarding the question about the integration of multimodal tools in the syllabus, the respondents also highlighted the role of the language labs in improving pronunciation and accent of the students. Most of the respondents expressed expressed their dissatisfaction over the lack of availability of language labs in most of the schools in the country. "We have a language lab in the school and we use it for providing practice in acquiring proper pronunciation and accent. I have seen a lot of improvement in these skills due to the use of language lab ………but such labs are limited to the schools which have budget for a language lab" (R28).

4.3.5.2 Limitations

Apart from expressing their agreement to the integration of multimodal tools in the syllabus, the teachers have expressed some concerns also regarding this improvisation. They have argued that though multimodal tools will be helpful in the process of teaching and learning in various

ways but there are several concerns such as the lack of infrastructure, affordability of the apparatus, connectivity, reach of resources and administrative willingness to change. The issues such as funding, bandwidth, infrastructure, teacher training, leadership, and technical challenges which have emerged from the data collected for the present study have also been highlighted by Bharti (2014) who investigates the educational technology challenges faced by schools in India. The respondents of the present study have enumerated similar challenges along with the reasons behind them. While answering the question on the use of multimedia and ICT in teaching- learning process, a government school teacher, R29 stated that "I have no doubt that use of smartphones, internet, etc. is certainly going to be supportive to the educational system. But I know many students whose parents don't even have smartphones or computers as they cannot afford them. It will be a huge challenge in this direction. Schools don't have any such facilities which you would see in the private schools". Another respondent stated, "These tools are accessible only for the people who live in the urban areas but for the ones who live in the rural areas, there is poor connectivity of internet and they don't have all these gadgets and devices at their homes and in the schools". Teachers have expressed their doubts about the interest of the government also as regards the upgradation of digital infrastructure in the schools. R32 comments "It would be better if government may take interest in the development of digital infrastructure in the state-run schools and in the rural areas but I don't see any serious steps taken in this direction till date".

4.3.5.3 Feasibility

Although teachers have enumerated both the benefits of integration of multimodal tools in the syllabus and the limitations in its implementation, they have tried to suggest ways on how it can be made possible by the government and the schools at large. R14 believes that there has to be "a planned beginning of the process wherein the government may start with providing funds and devices along with connectivity in different phases". Some teachers feel that this

enhancement is time-taking but necessary. "Since the government requires to make huge investments, it will take time but we should not say that it's not possible. It is necessary for all the schools to be abreast with technology to bring most of the students to the same level" (R18). Some of the interviewees pinpointed their concern over the lack of teachers-training in the effective use of multimodal tools since such training is very much required for adequate and effective use of multimodal tools.

4.4 Discussion

The EFA results and their analysis reflects that teachers perceive syllabus as consisting of 4 parameters of syllabus which have been named as 'objectives & content', 'course calendar', 'methodology', and 'evaluation'. The data also establishes moderate to significant correlations among the parameters of syllabus as well. Similarly, the correlation between the parameters of syllabus and IMS has also been found moderate to significant. The negative values in the IMS show a positive attitude of the respondents towards the assumption that the inclusion of multimodality in the syllabus will improve its quality and will enhance the productivity.

The difference in the perception of the teachers towards different parameters of syllabus and IMS has been analysed through paired sample t-test. The results show that the teachers clearly perceive the parameters of syllabus differently with sig. values at 0.00 for all the pairs. At the same time, the Mean (diff) values suggest that teachers are more positive towards the parameters of objectives & content than calendar and methodology. The data reflects their positive attitude towards IMS with significant Mean (diff) values ranging from -13.81 to -31.10. The results show that the teachers understand the difference between the parameters of syllabus and also have a clearly positive insight towards the assumption towards the inclusion of multimodal tools in the syllabus.

The study has used data triangulation to have an in-depth understanding of the teachers' views about the efficacy of the existing syllabus and the integration of multimodal tools in the syllabus. The quantitative and qualitative data substantiate each other's findings about all the parameters of syllabus design. The qualitative data supports the findings of the quantitative data regarding the achievement of the course objectives such as communication skills and development of all the language skills. The frequency analysis and the mean values of 2.50 for course objectives & content show a negative attitude of teachers towards the achievement of the set objectives and content. Teachers seem to be of the opinion that the syllabus provides limited opportunities for the development of the language skills. For all the statements, majority of the teachers (more than 50%) have expressed their disagreement. The qualitative data highlights several reasons behind the issue of non-attainment of the objectives such as the lack of environment, lack of interesting and standardised content in the textbooks, removal of communicative syllabus, etc. They feel that the syllabus lags in realising the course objectives of enabling the learners to communicate effectively and appropriately in real-life situations; using English effectively for study purposes across the curriculum; in developing all the four language skills i.e. listening, speaking, reading and writing; in developing interest and understanding of literature; etc. The respondents also think that the syllabus should be more application-oriented. They feel that the course content and activities should lead towards practical outputs wherein the students should be able to use English as a language of interpretation and communication in real-life situations. They feel that English should not remain merely a subject taught in the schools. The results of the study substantiate the results of an earlier study on textbook evaluation of CBSE Secondary Grade by Singh & Choudhary (2015) also as they have argued that teachers were not fully satisfied with the textbooks prescribed for Class X in terms of fulfilling the aims and objectives of teaching English. Hence, teachers do not seem to be satisfied with the course content which is a very important aspect

of any syllabus. They have highlighted several reasons behind their negative attitude towards the content. Regarding the content provided in the textbooks, teachers have opined that the content provided in the textbooks has limited scope for improvement of cross-cultural understanding among the students. The data shows that the respondents do not find the textbooks engaging and helpful in developing the cultural adaptability and understanding among the students. The qualitative study supports the results of the quantitative study as teachers have given the explanations for such perception and have also provided some suggestions to improve the quality of the content in the prescribed textbooks. They have gone back in time to remember the textbooks of communicative syllabus which they find as more interesting, standardised and engaging. They emphasise upon the substandard content in the books and they feel this course is suitable as a 'B Course' only as it previously was. The revision of textbooks has also been attended to by the respondents on the basis of the fact that the existing books were published in the year 2007 and have not been revised for many years.

Regarding the course calendar, the respondents seem to state that they find it difficult to complete the whole syllabus within the allocated periods and carrying out the activities to improve the language skills of the students becomes a herculean task for them. The interviewees stated that they do not get enough time to teach language as most of the times is devoted towards the completion of literature part which is cumbersome. Some of the teachers have raised questions towards the faulty specification of periods which is provided in the syllabus document. The lack of time in the hands of the teachers also affects their teaching of grammar in the classrooms. The study corroborates the findings of studies by Gwarjiko (2015) and Kusumah & Savitri (2018) where they analyse the teachers' perception towards English curriculum and state that teachers find the time allocated for covering the course materials as insufficient and need more learning time for students.

Since the study revolves around the need of including multimodal tools in the syllabus, the researcher tries to understand the teachers' perception regarding the extent to which the multimedia support and teaching tools have been provided and suggested by the existing syllabus. The $\mu=2.77$ for the parameter of methodology offers an evidence of teachers' negative stance about this aspect along with the provision of visual and graphical support in the textbooks. The interview data validates this result and adds that the textbooks of communicative syllabus had a better online and visual support as compared to the existing Language and Literature textbooks. The study also reveals that the new forms of written communication such as email, blogs, writing and posting on Wikispace, etc. are not a part of the syllabus. Regarding the visual support in the books, teachers believe that images play an important role in enhancing the understanding and creativity of the students. The study corroborates the findings of a study by Kasmaienezhadfard et al. (2015) regarding the enhancement of students' creativity through the images in the textbooks. However, teachers seem to affirm that the existing books do not have enough visual support and need to improve the quality of visual appeal in the textbooks considerably.

Regarding the parameter of evaluation, the teachers seem to express their discontentment. The questionnaire had statements to understand whether the system of evaluation is efficient enough to test the students' performance in a holistic manner, application-based assessment, test of creativity and critical thinking among the students. The mean value of 2.60 shows that the teachers believe that the system of evaluation is not efficient enough and needs many improvements in all these aspects. The qualitative study substantiates the quantitative analysis wherein the study shows that the teachers believe that a major issue with the system of evaluation is the lenient marking of the board answer scripts. Teachers believe that due to this leniency, students have become less serious towards studies and do not pay much attention towards learning of the different language skills. Another issue highlighted by the teachers is

the improper implementation of ASL and faulty internal assessment scheme. They believe that systemic improvements are required in order to make a new scheme of evaluation wherein schools evaluate the different language skills holistically in a reliable manner. According to the teachers, there are several complications in the system of evaluation as teachers find it complicated to follow. Kusumah & Savitri (2018) have also reported that the teachers want simpler and less-complicated assessment.

The final objective of the study is to check the possibility of integration of multimodal tools in the syllabus. The data shows that the teachers are positive about the use of multimodal tools such as multimedia, ICT, technology, visual tools, etc. as they will help in the understanding and application of different concepts in an interesting and easier manner. The qualitative data delves deeper to understand the limitations and the feasibility aspects to this proposition. The study reveals that though the teachers are in favour of the integration of multimodal tools in the syllabus but they have also shown some limitations in the way of such integration and have provided some suggestions also for the integration. The data shows that there are certain constraints such as lack of digital infrastructure in India, affordability, connectivity, reach of resources and government's interest. The findings corroborate the constraints in the integration of technology in the classroom as highlighted by Gupta (2017) in her study. However, the present study goes one step further by attempting to find some feasible options for the integration of multimodality in the syllabus. Teachers have suggested some ways to bridge the digital divide in Indian context. They have also proposed that the government needs to start the process of integrating the technology into the school curriculum for better learning and student engagement.