

CONCLUSION

The study evinces the multidimensional role played by the teachers in the education system. The importance of their roles and responsibilities increases manifold when they execute the practice at the workplace especially in the secondary grades. The quantitative results demonstrate a comprehensive picture of the demographic factors that affect the professionalism of teachers and the academic performance of students with special reference to mathematics and science. In addition, the difference in the effects of these in types of schools, i.e., private and public is also assessed. In order to dive deeply into the results and the probable reasons behind the occurrence of the results, qualitative data was also collected from the field which aided in the discussion for providing a holistic understanding of the constructs used in the study along with their causal attributes.

Teaching as a profession is yet to reach the status that is cherished by other professions like doctors, lawyers, and engineers, etc. The literature reviewed in the previous chapters helped in the identification of numerous reasons in order to substantiate the findings. Indian policy documents view teaching as a profession and recognise the need to enhance the occupational status of the profession owing to the enormous role it plays in nation-building. The initial phase of the study involved a thorough survey of the existing literature that dealt theoretically and empirically with the professionalism of teachers from where the dimensions were extracted and defined to formulate a scale for measuring professionalism.

Besides, documents that measured and discussed the academic performance of students, wherein papers and documents of international organizations behind the conduction of TIMSS and PISA survey were also reviewed. Since India has not yet participated in any

of these international surveys that have helped countries worldwide in reforming their education system for the better, this study takes a small step by using model questions from the PISA survey and uses them to gauge the performance of students in mathematics and science in Jhunjhunu district Rajasthan. Policy documents and reports from various government and private agencies in India have time and again addressed the gap in the quality of education imparted at the elementary school level. The gravity of problems students face after entering the secondary grades as the curriculum suddenly becomes specialized is the primary concern that makes it pertinent to study the teaching-learning trajectory at the secondary level of schooling.

The several dimensions and perspectives that are discussed in this study shaped the formulation of the scale for measuring the professionalism of teachers at the secondary school level. Further, the difference in the performance of teachers based on their demographics characteristics were evaluated. The study also assessed the effects of these demographic characteristics on the professionalism of teachers and also how these characteristics acted differently in contributing to professionalism in private and public schools of the district. A wide range of teachers' demographics was tested against their scores namely, gender, age, highest academic and professional qualification, annual income, job description, and experience. These demographic characteristics emerged as important indicators that should be studied with respect to the teachers and their professional practice.

On the other hand, PISA model questions were used to assess the performance of students in mathematics and science towards the end of their secondary grades and the reason was to assess the cognitive abilities for a better picture of their competencies. The

performance of students was also examined against their demographic characteristics. The differences in the performance of students based on their demographic characteristics and the effects of these demographic characteristics on their overall performance and their performance in mathematics and science were also analysed. The qualitative data collected from teachers and students was used to discuss the quantitative findings of the study. The demographic factors that were studied in relation to the performance of teachers were gender, board of the school, whether they have completed preschool and whether they take tuitions outside the school.

The schools play a major role in providing a conducive environment to these students compelling them to go forward with their education without dropping out. A sudden change and enhancement of complexity in the learning curriculum as soon as the child enters the secondary grades makes the students and their school life vulnerable. Due to the Right to Education Act, a large number of students got enrolled in the elementary grades in the past decade. The responsibility of handling the students passing out from the elementary schools to higher secondary grades rests with the secondary grades. At this point, the immediate support extended by the teachers by the means of their professional practice becomes a decisive point that can motivate or demotivate the students from continuing their studies. The current study recognises this emergency and tends to address this situation by exploring the professional aspect of teaching occupation and the factors that affect the cognitive abilities of students that emerge as their performance in mathematics and science at the end of their secondary education.