

CHAPTER V

SUMMARY AND CONCLUSION

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5.1.0 INTRODUCTION

The progress of any country is dependent on its educational system and the education system will be able to discharge its set functions only when accomplished by right kind of teaching staff. It is the teachers that translate all educational theories into practice making the students learn. The teachers therefore have the most powerful influence in any system of education. Teaching is the only field where we are handling the students who will become the citizens of next generation. Teachers are responsible to provide needed skills and positive attitude for the future citizens for which they are called as the nation builders. In this context **Education Commission (1964-66)** can be remembered, as the commission started its report with the statement “the destiny of India is now being shaped in her classrooms. This, we believe is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges, will depend our success in the great enterprise of national reconstruction, the principal objective of which is to raise the standard of living of our people”. Hence, the destiny of nation is shaped by teachers as teaching is a profession, which lays the foundation for preparing the individuals for all other professions. Therefore, the success of an educational system largely depends upon the quality of teachers available to it and again the quality of teachers depends upon the quality of teacher education programme that moulds them. Thus, it is the teacher education which prepares the teachers among those who want to join this profession through the process of discovering, analyzing, and synthesizing educative experiences. **Venkataiah (2009)** rightly observes that “The quality of its citizens depends not exclusively, but in critical measure upon the quality of their education. The quality of their education depends more than upon any single factor upon the quality of teachers”. So teacher is the backbone of the educational system, maker of mankind and architect of the society. Teachers are the torchbearers in creating social cohesion, national integration and a learning society. They are capable of generating and imparting knowledge as per the commands and demands of the society and such teachers are prepared or trained in the teacher training institutes either through face-to-face mode or through distance mode. The concept that teachers are born and not made has been completely changed because the

teacher education has proved that teachers can also be made. Teacher education refers to the policies and procedures designed to equip teachers with knowledge, favorable attitude, behaviors and skills that are required to perform their tasks effectively in the school and classroom. It fosters the idea that student-teachers are required to have positive attitude towards teaching profession, enough teaching aptitude, interest towards teaching-learning environment, knowledge of the theory and practices of education and the skills of teaching, so that they can perform their roles effectively. The studies conducted by **Sharma (2006)**, **Prasad (2007)**, **Augustine (2010)** and **Seetharaman (2015)** also revealed that teaching aptitude of the pupil teachers was significantly correlated with their general teaching competency. In addition to that **Kaur (2007)** also concluded that B.Ed. programme enhanced teaching aptitude of prospective teachers. As teachers are the key factors in education system, their subject knowledge and academic achievement has an influence on students' learning in the classroom settings. **Patil (2012)** revealed that student-teachers' attitude increases with increase in their academic achievement and they can be used as predictors of academic achievement of prospective teachers. In addition to this, teachers' personality and behavior are also the significant contributors to the teaching and learning process of any discipline. Studies carried out by **Buch (1959)**, **Mehrotra (1973)**, **GCPI (1976)**, **Kaul (1977)**, **Verma (1979)**, **Kaur (2007)**, **Kavita (2011)** and **Gunjal (2014)** revealed that training had favourable effect on the attitude of teacher trainees towards teaching profession and teachers' attitudes towards teaching have an effect on their classroom performance. It not only affects their teaching practice but also their students' behaviour. That's why they have a crucial role in making students with high or low attitude towards their subjects.

In the 21st century, a teacher is expected to prepare children holistically, that is, taking into consideration not only the cognitive aspect but also the affective and psychomotor aspects of a child and this is possible only if teachers have entered their profession of teaching by choice and not by chance. Teachers can perform their role better if they have adequate knowledge of child's psychology, classroom management, various evaluation techniques, and favorable attitude and aptitude towards teaching profession, interest in teaching, sufficient teaching skills, etc. Teacher training institutions play a vital role in the acquisition of these skills and concepts through the organization of various teacher education programmes. But the issue is whether they already possess the skills and required knowledge in education to teach effectively or learn it during the B.Ed.

programme. To what extent different types of teacher training institutions are able to achieve their objectives and influence their attitude towards teaching, teaching aptitude, interest towards teaching profession, teaching skills, etc. Whether B.Ed. through regular mode and B.Ed. through distance mode have the same impact? What changes are being brought about in their teaching competence due to these different types of teacher training programmes is the ambiguity, which the investigator is curious to find out.

5.2.0 REVIEW OF RELATED LITERATURE

The reviewed literature was categorized into the following two categories: studies conducted abroad and studies conducted in India. The implications of the reviewed literature for the present study are as follow.

It was observed from the reviewed literature that the studies conducted by GCPI (1976), GCPI (1977), Raina (1981), Patil (1984), Dave (1987), Mathur (1987), Singh (2004) etc. were all related to attitude of pre-service or serving teachers towards teaching with respect to supervisory or peer feedback, microteaching under simulated and real condition, teachers belonging to different disciplines, intelligence and interest etc. Studies carried out by Buch (1959), Mehrotra (1973), GCPI (1976), Kaul (1977), Verma (1979), Kaur (2007), Kavita (2011) and Gunjal (2014) revealed the similar results that training had favourable effect on the attitude of teacher trainees towards teaching profession. Other studies related to attitude were done by Saran (1975), Sinha (1980), Sundarajan et al (1991), Devi (2005), Viswanathappa (2005), Kanti (2011), Ahmet, Canan (2009), Mehmet et al (2009), Parvathi (2012), Patil (2012) and Demir (2016). Saran (1975) found positive attitude of student teachers and interest was positively related with attitude towards the teaching profession and level of education. Studies conducted by Sharma (1984), Goel et al (2007), Prasad (2007), Panda and Pradhan (2009) and Jabeen (2017) were related to aptitude of pre-service or in-service teachers in teaching. Some studies revealed that pre-service or in-service student-teachers had favorable attitude towards teaching and high aptitude in teaching and some studies revealed that they had unfavorable attitude towards teaching and low aptitude in teaching. Other studies related to aptitude were carried out by Adaval (1952), Sharma (1971), Patil and Deshmukh (1993), Kulshreshtha and Heeranandini (2006), Sharma (2006), Kaur (2007), Augustine (2010) and Sajan (2010). Studies done by Adaval (1952) and Patil & Deshmukh (1993), Sharma (1984) uncovered that about 75% of student teachers of ten teachers' colleges of three universities of Rajasthan were below

average in their teaching aptitude, whereas, Seetharaman (2015) again unearthed that student teachers of two districts of Tamil Nadu in general had below average in their teaching aptitude.

Studies conducted by Patel (1976), Kanwal (1979), George and Anand (1980), Jangira, Singh & Mattoo (1981), Singh (1981), Das et al (1982), Kumar (1998) and Ellison (2009) were related to teaching skills and mostly experimental in nature. All the studies together emphasized on the same thing that training in teaching skills using micro-teaching technique brought about significant improvement in teaching skill competence and general teaching competence. Studies conducted by Buch (1975), Sinha (1982), Das (1991) and Patted (1992) were related to evaluation process. Buch (1975) pointed out that innovations in the Department of Education, The M.S. University of Baroda were undertaken in evaluation- transfer of power from external to internal and making whole evaluation process a continuous one whereas Sinha (1982) disclosed that the evaluation process in Bihar has remained traditional.

Studies conducted by Shukla (1969), Sharma (1973), Kohli (1974), kakkad (1983), Bhatia (1987), Bhosale (1992), Walia(1992), Behari (1998) and Erol Karaca(2008) were related to curriculum of teacher education. Studies by Srivastava (1982), Srivastava and Kanti Mohan (1982), Hemabujam (1983), Pugazhenthii (1991), Srivastava et al (1999), NCTE (2001) and NCTE (2001) were done on teacher education programmes. Srivastava (1982) and Srivastava and Kanti Mohan (1982) together found that coordination between department, schools and community was lacking. There was little uniformity in organizing practice teaching and seasonal work in the various departments. There was no significant contribution of the programme in developing teaching aptitudes among trainees. The teacher educator and student-teacher ratio was 1:14, which was higher than prescribed by the government. 60% of the departments did not have Educators in all school subjects. Not all of them had double post graduate degree, less than 10% of them had a doctorate degree. Admission rules had many drawbacks and average working days were only 118. Hemabujam (1983) unearthed that the comprehensive B.Ed. curriculum was not effectively implemented due to time shortage in colleges of education in Tamil Nadu. Pugazhenthii (1991) studied in detail the B.Ed. and M.Ed. programme through correspondence system in Madurai Kamaraj University and found the clientele heterogeneous. Students were not very satisfied with the system due to correction of assignment without remark or comment and difficulty in getting permission from heads of

schools for practice teaching. Srivastava et al (1999) found that lesson planning, teaching with aids and using various teaching skills constituted the prominent pattern of practice teaching in RIEs, IASE and University Departments of Education. Preparation of achievement test, textbook analysis and teaching material constituted majority of assignments given. NCTE (2001) discovered that teacher education institutions in Assam lacked minimum basic facilities and qualified staff. Studies related to knowledge in education were carried out by Sharma (1970), Sinha (1980) and Tharyani (1986). Sharma (1970) found that the achievement in theory subjects do not take into account the important variables like personality of the teacher, handwriting, expression etc. which affect teaching.

Studies comprehensive in nature covering different dimensions of teacher education programme were carried out by Singh (1981), Kavita (2011), Patil (2012), Kumari (2013) and Seetharaman (2015). There were only two studies conducted by Sundarajan et al (1991) and Patil (2012), which were related to interest towards teaching profession. Sundarajan et al (1991) discovered that women student teachers were found to have better interest in teaching as compared to men. There were only four studies which were comparative in nature and conducted by Goel et al (2007), Garg & Gakhar (2011), Singh (2011) and Yadav (2011). Goel et al (2007) found the mean achievement score of the in-service teachers on teaching aptitude significantly higher than that of the pre-service teachers. From the review of related literature the investigator found that,

- Teaching aptitude of in-service teachers was higher than that of the pre-service teachers.
- Teaching aptitude of those pupil teachers who had exposure to two years and four years B.Ed. training programme was higher than those who had experience of only one year B.Ed. course and they had better classroom teaching performance.
- Knowledge and skills are fundamentals for making teaching effective and training enhances the teaching skills. Training in skills is pre-requisite for improvement in teaching skill competence and general teaching competence.
- Highly significant positive relationship was found between teaching aptitude of teachers and teaching competence. Teaching aptitude, interest in profession and attitude of teachers do predict their ability to teach effectively.

- Positive attitude and interest of the student-teachers contribute to their achievement in compulsory subjects.
- In one of the studies, 75% of student-teachers were found to be below average in aptitude and intellectual ability and a positive correlation was found between them.
- In many studies readymade tools were used to measure teaching attitude and data was analyzed by using t-test or Mann Whitney U-test.

Summarizing the research studies cited above it could be inferred that teaching effectiveness depends on the content knowledge of the subject as well as the generic pedagogical knowledge. In addition to this teaching effectiveness seems to be significantly influenced by teacher characteristics like teaching aptitude and attitude, interest in teaching profession, proficiency in teaching skills and competent knowledge in education. It was observed that majority of the studies were survey in nature and conducted with distinct objectives and focus. Mostly the studies were done on pre-service student-teachers doing B.Ed. through regular mode. Mainly readymade tools were used to measure teaching attitude such as Teacher Attitude Inventory by Ahluwalia (1978), Minnesota Teacher Attitude Inventory, Teacher Attitude Inventory prepared by CASE and to measure teaching aptitude- Test of Aptitude by Wallace, Teaching Aptitude Test by Pandey, Teaching Aptitude Scale structured and validated by M/s. Psycorm services, Teaching Aptitude Test Battery developed by Singh and Sharma (1998) and Teaching Aptitude Test developed by Gakhar and Rajnish were used. The knowledge in education of B.Ed. students was assessed by evaluating their academic proficiency. Only two studies were done on interest in teaching profession and that too with a gap of eleven years. No study was conducted in the area of teaching skills after Kumar (1998) in India and that too was done after 16 years. Very few studies were done on in-service student-teachers doing B.Ed. through distance mode. No study was found on all these aspects together. The studies were done either on pre-service or in-service B.Ed. student-teachers or on serving teachers and rarely on both together. Though there was a study conducted by the researcher comparing the two systems of teacher education i.e. B.Ed. through regular and face-to-face mode and B.Ed. through distance mode but it was with a small sample and the study was at M.Ed. level. The investigator did not come across any study, which had conducted a comparative study of pre-service and in-service secondary teacher education programmes. So the need was felt for the present study.

5.3.0 RATIONALE OF THE STUDY

Pre-service and In-service teacher education programmes are the programmes for professional preparation of secondary teachers. Accordingly, they should be provided with a comprehensive coverage of professional knowledge, understanding, attitudes, interests, values and skills along with functional orientation as per the changing needs of the society. Time and again the responsibility of Teacher Education programme in preparing the teachers to face the increasing challenges in the profession has been emphasized. The National Curriculum Framework (2005) has also emphasized “the need for bringing change in Teacher Education curriculum for developing professional identity of teachers and to make Teacher Education more relevant in school education.” During different times, various demands and expectations are placed on the teachers, which need to be addressed both by pre-service and in-service B.Ed. programmes. Both pre-service and in-service teacher education programmes are designed to achieve the same purpose of preparing competent teachers for schools considering the need and requirements of different aspirants. The content coverage of both the programmes in terms of theory and practical are very similar considering the curriculum framework prepared by the NCTE. Pre-service B.Ed. programme was of generally one year duration till 2014-15(now it is of two years duration), whereas, the in-service B.Ed. programme is of two years duration having more or less equal credits (60 to 70 credits). Only the difference is the mode of transaction of the programmes. The mode of transaction of the pre-service B.Ed. programme is in face to face having very powerful component of teacher educators’ live teaching and guidance continuously during a period of one year. Unlikely, the mode of transaction of the in-service B.Ed. programme through distance learning having few very powerful components like, well designed study materials developed by well known teacher educators for all the subjects, face-to face counseling sessions by teacher educators, workshops in face to face mode, practice teaching by experienced teachers and the teacher educators, use of distance learning communication technology and a self study environment. Whether the difference in the mode of transaction creates different teachers in terms of their knowledge (both theory and practical), skills, interest, attitude towards teaching and aptitude, is the research interest of the investigator that formulated the present study. Studying and comparing the process of admission, teaching learning, evaluation, professional attributes and observing the transforming process of teacher trainees in both the in-service and pre-service modes may help the researcher through the present study to come out of certain findings that may help both the modes in improving

themselves by learning from each other and strengthening both in-service and pre-service teacher training programme.

There was a time during 1990's when there was mushrooming of teacher training institutes in distance mode. One may find teacher education centres in distance mode in every state university having thousands of intake capacity without proper control of any apex bodies. During this time it was perceived that the distance mode is responsible for deteriorating the standard and quality of teacher training. During this time NCTE doubted the quality of teacher training institutes providing B.Ed. degree through distance mode and made few steps to derecognize the entire B.Ed. programme through distance mode and also succeeded in this endeavour. It argued that their quality is poor as there is no face to face component in these programmes which is very essential for learning teaching skills. Due to the demand for In-service mode of teacher training from these untrained teachers working in the schools, IGNOU started B.Ed. programme through distance mode in 1999 for those needy teachers having atleast 2 years of teaching experiences adding few face to face components such as workshops, practice teaching and counseling sessions following the guidelines of NCTE. These programmes were started at special study centres in the existing teacher education institutes having sufficient staff. As per the NCTE norms, the IGNOU B.Ed. programme through distance mode was meant to clear the back logs of untrained teachers working in different schools and till to-day it is continuing and most probably it would continue as a parallel structure of the pre-service B.Ed. programme. There was conflict between IGNOU and NCTE from time to time in terms of teacher education programmes in distance mode. Now IGNOU has become a major player in distance mode education for B.Ed. and NCTE does not permit many state universities to start B. Ed. Due to these ups and downs of the distance mode in teacher training, many appointing bodies (private and government) are doubting the quality of B.Ed. completers in distance mode and they consider it inferior to the pre-service mode. This is also a question in the mind of the researcher to compare pre-service and in-service student teachers in terms of few vital aspects like knowledge in education, teaching skills, attitude towards teaching profession, teaching aptitude and interest towards teaching profession and hence the proposed study.

The review of the related literature reveals that the study conducted by Jangira, Singh & Mattoo (1981) came out with the inference that training in teaching skills brings significant improvement in teaching skill competence and general teaching competence.

Study conducted by Prasad (2007) figured out that teaching aptitude, interest in profession, professional knowledge and attitude of teachers does predict their ability and competence to teach. Study carried out by Panda and Pradhan (2009) concluded that the teaching aptitude had a significant positive relationship with classroom teaching performance for the pupil-teachers who had exposure to two years and four years B.Ed. training programme than those who had the experience of only one year B.Ed. course. All these studies indicate that teachers' attitude towards teaching, teaching aptitude, interest in teaching, knowledge in education and teaching skills affect their teaching ability and competence to teach effectively. Therefore, it becomes imperative to find out and compare the in-service and pre-service student teachers' attitude towards teaching, teaching aptitude, interest towards teaching profession, knowledge in education and teaching skills. To discern to what extent these variables influence their teaching proficiency. Whether there is any disparity between both the modes with respect to all these variables?

Due to norms amendment by NCTE in 2014 more focus has shifted to face to face mode and specifically to integrated mode of B.Ed. programme and they are least emphasizing on in-service B.Ed. programme. The duration of pre-service B.Ed. programme through face-to-face mode has been increased from one year to two years and in in-service B.Ed. programme through distance mode one more eligibility criteria of trained in-service teachers in elementary education and NCTE recognized teacher education programme through face-to-face mode has been added along with the requirement of possession of degree, minimum teaching experience of two years and serving teachers in schools. What is the purpose of this? Whether the changes are research based? Teacher education through distance mode is considered by many as inferior in comparison to pre-service B.Ed. Programme. Do the teachers, who have acquired degree through distance mode, really lack teaching competency? Why their quality is being questioned? Whether they really have low aptitude, attitude, interest, knowledge and skills? Are they really bad in their proficiency as a teacher? This is also one of the reasons for taking the present study for investigation.

5.4.0 STATEMENT OF THE PROBLEM

A Comparative Study of Secondary Teacher Education Programmes

5.5.0 OBJECTIVES OF THE STUDY

The study was designed with the following objectives:

1. To compare the admission process of pre-service and in-service secondary teacher education programmes.
2. To compare the teaching-learning process of pre-service and in-service secondary teacher education programmes.
3. To compare the evaluation process of pre-service and in-service secondary teacher education programmes.
4. To compare the personal attributes of students of pre-service and in-service secondary teacher education programmes in terms of teaching aptitude, interest towards teaching profession, attitude towards teaching profession, knowledge in education and teaching skills.

5.6.0 HYPOTHESES

Following null hypotheses were tested at 0.05 level of significance:

1. There will be no significant difference in the teaching aptitude of pre-service and in-service student-teachers.
2. There will be no significant difference in the interest of pre-service and in-service student-teachers towards teaching profession.
3. There will be no significant difference in the attitude of pre-service and in-service student-teachers towards teaching profession.
4. There will be no significant difference in the knowledge in education of pre-service and in-service student-teachers.
5. There will be no significant difference in the teaching skills of pre-service and in-service student-teachers.

5.7.0 OPERATIONAL DEFINITION OF THE TERMS

Attitude towards teaching Profession: For the present study, Attitude towards teaching profession was the scores secured by the student-teachers on a readymade attitude scale prepared by Biswal in 2005.

Interest in Teaching: Interest in teaching profession for the proposed study was the total secured scores by the student-teachers on the Interest Inventory prepared by the investigator.

Teaching Aptitude: Teaching aptitude of the pre-service and in-service student-teachers for the proposed study was the total score secured in the Teaching Aptitude Test developed by Dr. Renu Mishra in 1993.

Knowledge in Education: For the present study, Knowledge in Education was the total scores secured by the pre-service and in-service student-teachers in the knowledge test prepared by the investigator.

Teaching Skills: For the present study, Education skills were the total scores secured by the pre-service and in-service student-teachers in the observation schedule (teaching skill scale), prepared by the investigator.

5.8.0 EXPLANATION OF THE TERMS

Pre-service student-teachers: Those student-teachers after the completion of their graduation or post graduation course enter the teacher training programme of one year duration, which is organized through face to face mode.

In-service student-teachers: Those serving teachers after the completion of their graduation or post graduation course start teaching in schools and enter the teacher training program of two years duration, which is organized through distance mode, only when they have two years experience of teaching.

5.9.0 DELIMITATION OF THE STUDY

The study was conducted with the following delimitations:

- In the present study, teacher education was delimited to the B.Ed. programme only in both the modes.
- In-service student-teachers were delimited to the students of IGNOU, having study centres in Gujarat and English as the medium of instruction at B. Ed. Programme.
- Pre-Service student-teachers were delimited to the English medium students of the Colleges of Education in Gujarat.

5.10.0 METHODOLOGY

For the present study, research methodology includes research design, population of the study, sample of the study, tools used in the study, procedure of data collection and the procedure of data analysis, interpretation and discussion which are given as follow.

5.10.1 POPULATION FOR THE STUDY

Population for the present study consisted of all the pre-service and in-service student-teachers in Gujarat. Nearly the population comprised of 21300 pre-service and 700 in-service student-teachers in the year 2014-15 and 2015-16. The population for pre-service B.Ed. programme consisted of Six English medium B.Ed. institutes/colleges/departments in Gujarat and for IGNOU in-service B.Ed. programme, the seven study centres situated in Gujarat were taken as population, out of which only seven were functional.

5.10.2 SAMPLE OF THE STUDY

Sample was taken purposively, out of six English medium B.Ed. institutes/colleges/departments in Gujarat, three English medium B.Ed. institutes/colleges/departments were selected. Similarly and out of seven functional IGNOU study centres for B.Ed. programme in Gujarat, only one study centre situated at Department of Education, Faculty of Education and Psychology, The M.S.U. of Baroda was selected purposively and two consecutive years' (2014-15 and 2015-16) in-service student-teachers were taken as sample. 205 pre-service student-teachers of second semester and 186 in-service English medium student-teachers of second year those provided all the data related to these objectives constituted as the sample for the present study.

5 student-teachers from each mode were selected randomly from each population from The M. S. U. of Baroda and IGNOU study centre situated at Department of Education, Faculty of Education and Psychology, The M. S. U. of Baroda and ten teaching lessons of each of these 10 students were observed to study their teaching skills. Five students from each mode were also interviewed to have a holistic view of their professional course.

5.10.3 TOOLS AND TECHNIQUES

For the present study, two available tools were used to collect data. Details about the tools are as follows:

- **Attitude Scale:** An attitude scale prepared by Prof. Ashutosh Biswal in the year 2005 with 5 point scale containing 25 statements which revealed their attitude towards the teaching profession. The statements in the attitude scale were related to academic aspect of teaching profession, interest and involvement towards administrative works in the school, inclination of student-teachers towards the social status of teaching profession and the temperament of student-teachers towards the financial beneficiary in teaching profession.
- **Aptitude Test:** An Aptitude Test developed by Dr. Renu Mishra in the year 1993, containing 50 items in the form of MCQs with four alternatives for each stem, was used for the present study to measure teaching aptitude of pre-service and in-service student-teachers. The tool mostly contained items related to classroom situations and four homogeneous alternatives were given for each stem which contained different types of responses expected from the teacher to those classroom situations and the student-teacher had to encircle the most appropriate response in that situation.
- **Knowledge test in Education:** It was prepared by the Investigator to measure the knowledge of pre-service and in-service student-teachers with respect to Educational Psychology, Educational evaluation, Curriculum and Instruction, Educational Technology, Methodology of Teaching and Education in Emerging Indian Society/ Education and Society, as these topics were common in most in-service and pre-service B.Ed. colleges. It contained a total of 150 items with 25 items from each topic.
- **Interest Inventory (for measuring interest towards teaching profession):** Two separate interest inventories were prepared by the investigator to measure the interest of pre-service and in-service student-teachers towards teaching profession. It contained 40 items with five-point scale. The statements in interest inventory were related to B.Ed. programme, teachers' role and function in the area of co-scholastic activities, interest and involvement in academic, administrative and teaching-learning process in school.
- **Observation Schedule:** An observation schedule was prepared by the investigator to check the practical knowledge related to practice teaching (Skills) on a five-point scale. It consisted of 50 items which were related to all the teaching skills used during classroom transaction such as Skill of Introduction, Skill of Black

board writing, Skill of Illustration with Examples, Skill of Probing, Skill of Questioning, Skill of Stimulus-variation, Skill of Non-verbal cues, Skill of using Teaching-aids, Skill of Explanation, Skill of Questioning, Skill of Classroom Management, Skill of Praising and Skill of achieving closure etc.

- **Interview Schedule:** A structured interview schedule was prepared by the investigator to take the holistic view of the pre-service and in-service student-teachers regarding their B.Ed. programme. The interview schedule consisted of 37 questions, 6 questions on admission process, 23 questions on teaching-learning process and 8 questions on evaluation process.

5.10.4 DATA COLLECTION

The data related to objectives 1, 2 and 3 were collected from the sample colleges and study centres personally. The universities of the sample colleges and study centres were searched from the web to get needed information about the admission process, teaching-learning process and evaluation process of secondary teacher education programmes. The data related to objective 4 was collected personally by employing the tools on the sample students. 100 practice teaching lessons, 50 of in-service student-teachers and 50 of pre-service student-teachers were personally observed by the investigator in the schools during practice teaching. 5 selected samples from each group were interviewed personally by the investigator with the help of a structured interview schedule to take the holistic view of the pre-service and in-service student-teachers regarding their B.Ed. programme.

5.10.5 PROCEDURE OF DATA ANALYSIS

Scores obtained from the mentioned tools for the present research were analyzed by employing qualitative and quantitative data analysis techniques with the help of both descriptive statistics and inferential statistics. Frequency, percentage, and content analysis were used to analyze the qualitative data. The descriptive statistical techniques like Mean, Standard Deviation, Standard Error of Mean and for the inferential statistics Mann-Whitney U-Test was used during data analysis to analyze the quantitative data. Data obtained through observation and case studies were analyzed qualitatively.

5.10.6 MAJOR FINDINGS OF THE PRESENT STUDY

Following were the major findings of the present study.

1. Admission process in both pre-service and in-service B.Ed. was found with minimum criteria of 50% and above marks in Graduation. In pre-service B.Ed. programme, admission was based on academic performance at degree level, i.e. Graduation and Post-graduation marks whereas in in-service B.Ed. programme, along with the academic performance in Graduation and Post-graduation admission was totally based on the merit in entrance test with the minimum required criteria of two years of teaching experience and serving teacher in school. Both pre-service and in-service B.Ed. programme followed the reservation policy followed by the State and Central Government.
2. In pre-service B.Ed. programme, teaching-learning was done through regular teaching in face-to-face mode with utmost 80% attendance, whereas in in-service B.Ed. programme, teaching-learning was done through personal contact programmes- counselling sessions and tutorials where attendance was not compulsory. Pre-service B.Ed. programme had Core components and Practical which included teaching practice, assignments, development of teaching aids etc. Along with the Core component the in-service B.Ed. programme had school based practice teaching, school based practical and workshop based practice teaching, workshop based practical. In both, Pre-service and In-service B.Ed. programme, student-teachers were assigned certain projects and assignments such as, making Programmed Learning Material, teaching-aids and working models; doing content and textbook analysis. They were also supposed to carry out action research in the school set-up. Before they went for practice teaching in schools, they were oriented about the teaching skills, teaching aids, educational technology, content analysis, blue print, lesson plans and unit plans. Then they underwent Simulations where they learned to teach in an artificially created environment, generally in a group of 8 to 10 student-teachers. After learning through discussions and feedbacks in Simulation, they went for practice teaching in schools. They were also supposed to maintain a Journal of records of lesson plans and unit plans to be delivered in the class.

3. In pre-service B.Ed. programme, Continuous and comprehensive evaluation was done through assignments, periodical tests and semester-end examinations. Mostly subjective type questions based on understanding of the content and sometimes application based questions were asked in theory courses. Two Viva-Voce tests were conducted and both the internal as well as external viva-voce tests carried equal weightage. Whereas, in in-service B.Ed. programme, Continuous and comprehensive evaluation was done through assignments, workshop and performance test through practice teaching and term-end examinations, respectively. In both pre-service and in-service B.Ed. programme evaluation was transparent as it was based on pre-declared guidelines and evaluation rubric.
4. Pre-service and in-service student-teachers do not differ significantly in terms of their teaching aptitude.
5. Pre-service and in-service student-teachers do not differ significantly in terms of their interest towards teaching profession.
6. The attitude towards teaching profession of in-service student-teachers is significantly greater than that of pre-service student-teachers.
7. Pre-service and in-service student-teachers do not differ significantly in terms of their knowledge in Education.
8. Pre-service and in-service student-teachers do not differ significantly in terms of their teaching skills.

5.11.0 IMPLICATIONS OF THE PRESENT STUDY

The following are the implications drawn out from the findings of the present study.

The findings can give suggestions to the curriculum framers to frame a suitable curriculum required for student-teachers so that favourable attitude, aptitude and interest towards teaching profession can be developed among them.

The findings indicate that teacher training programmes help in enhancement of teaching skills so without B.Ed. degree nobody should be allowed to teach in schools.

Both type of teacher education programmes Pre-service B.Ed. programme of one year through face to face mode and In-service B.Ed. programme of two years through distance mode should be utilized to prepare teachers so that teaching can be made more effective and productive. NCTE has always questioned and doubted the quality of in-service B.Ed. programme through distance mode but the way IGNOU conducts the entrance test for giving admission in in-service B.Ed. programme, pre-service B.Ed. programme should also conduct entrance test to check the teaching aptitude and interest of the candidates before giving them admission to the B.Ed. programme, so that only those candidates who are interested in teaching profession will do the degree course. The teaching-learning material of IGNOU in-service B.Ed. programme is well developed by the experts or teacher educators in the specific field, which is given to the student-teachers in the form of modules for self-study and based on these modules they are given the assignments. Mostly reflective type of work in assignments, are given. Similarly, from pre-service B.Ed. programme, a wide range of teaching skills can be learnt by in-service B.Ed. students.

The findings of the present study suggest that both the in-service and pre-service B.Ed. programmes are of serious nature catering the need of specific group. Though the in-service B.Ed. programme used to face criticism due to its distance mode, it should not be considered so as that programme is quite similar to the pre-service programme in terms of theory courses, teaching-learning, evaluation and assessment, teaching skills, teaching aptitude, attitude towards teaching profession, interest and educational knowledge. It may be due to the two year duration of the programme and availability of proper instructional materials.

5.12.0 SUGGESTIONS FOR FURTHER STUDIES

The investigator would like to suggest following points for further researches.

- A comparative study of student-teachers studying through one year, two years and four years' B.Ed. programme with respect to their admission process, teaching-learning process and evaluation process.
- A comparative study of student-teachers studying through one year, two years and four years' B.Ed. programme with respect to their aptitude, interest, attitude, knowledge and teaching skills.
- A comprehensive study on 'practice-teaching phase' as conducted in pre-service and in-service B.Ed. programme.

- Similar studies could be conducted like the present study taking other attributes of student-teachers like, motivation, intelligence, other aptitude and values.
- A comparative study of practice teaching process in secondary teacher education institutions in Gujarat State.
- A Critical Evaluation of Curriculum for Secondary Teacher Education in Gujarat.
- An Evaluative Study on Efficacy of Secondary Teachers' pre-service and in-service Training Programme in relation to Certain Teacher Effectiveness Components.
- In-depth case studies on few pre-service and in-service student-teachers having high/low favourable attitude, aptitude and interest in teaching can also be done.
- Similar comparative study could be carried out in other States of India.
- Qualitative studies on teacher's personal attributes affecting their classroom environment and teaching-learning process may be conducted.

5.13.0 CONCLUSION

The present study was a comparison of secondary teacher education programmes in different modes. Admission, teaching-learning and evaluation process of pre-service and in-service student-teachers was compared and analyzed. They were also compared with respect to teaching aptitude, interest towards teaching profession, attitude towards teaching profession, knowledge in education and teaching skills. From the findings and discussion it can be concluded that teacher training programmes are must for becoming professionally skilled teachers as it helps in the enhancement of teaching skills and development of favourable attitude and aptitude towards teaching profession. Even the modes of teacher training programme either face-to face or distance mode doesn't affect teaching aptitude and interest towards teaching profession of B.Ed. students. Both modes of teacher education programmes Pre-service B.Ed. programme of one year through face to face mode and In-service B.Ed. programme of two years through distance mode are almost equally effective and should be utilized for training future teachers to become professionally skilled. On one hand, Pre-service B.Ed. programme provides strong knowledge base theoretically as well as practically and ends with B.Ed. certification. On the other hand, In-service B.Ed. programme which faces criticism due to its distance mode helps the serving teachers to acquire the required teaching skills, update and maintain pace with the changing time and develop professionally as a skilled teacher. In-service secondary teacher education programme in distance mode emerged as an alternative to the

formal secondary teacher education programme in regular mode as it emphasized on education for all, limitation of the formal system in providing greater accessibility were taken care of and it was designed to provide alternative educational avenues to the poor and the working people for higher education. The new communication technology brought it within the reach of all. It helped in improving the quality of serving teachers and thereby education in schools.

This study was on pre-service B.Ed. programme of one year duration. In 2014, to ensure quality teacher training, the National Council for Teacher Education (NCTE) made some sweeping changes by increasing the duration of the Bachelor of Education programme from one year to two years with major changes in the curriculum. Total curriculum framework was reset with literary inputs all over the country, which is not an easy task to do. With this change, aspirants had to study for five years to become a teacher (3 years of graduation+2 years for B.Ed.). It was assumed that this will be the final model of teacher education along with the 4-years integrated teacher training course after class XII. However, the number of takers for the 2-year course after graduation were always much higher than the number opting for the integrated course. According to experts, this change from one-year duration to a two-year model was done to give a professional edge to the aspirants like any other professional courses like B.E. (four years), M.B.B.S. (five-and-a-half years), C.A. (five- years) etc. The same reason is being cited now for scrapping the option for the 2-year B.Ed. course. The government is planning to drop the two- year course in Bachelor of Education and allow only a four- year integrated teacher training programme from the year 2018-19, abandoning a model it had rolled out three years ago.

These sudden and abrupt changes in the secondary teacher education programmes shows lack of foresightedness of the government about the B.Ed. programme. This means the two- year B.Ed. course is to be abandoned without any study on its effect on teacher training. This will directly affect the student-teachers who will be the ultimate sufferers. Who told them to make it of two years and then going for a four years programme so hastily? For implementing these changes it needs a lot of work. At least there should be a vision for fifty years and so.

From this it is very much obvious that the Secondary teacher education programme is at the centre of all components which can help to prepare a pool of quality teacher trainees and consequently to maintain the quality of education in schools. Therefore, maintaining

the quality of teacher training institutes through multilevel approach is the need of the hour, i.e. at the level of admission, at the level of curriculum, at the level of teaching-learning at the level of evaluation and assessment and at the level of technological advancement or policy implementation.