CHAPTER II

REVIEW OF RELATED LITERATURE

- Theoretical overview
- Review on status of teacher education
- Review on quality of teacher education
- Review on challenges of teacher education
- Review on expansion of teacher education
REVIEW OF RELATED LITERATURE

According to an Indian prayer, “The teacher is Brahma, the Creator, He is God Vishnu, He is God Maheshwara. He is the entire universe, salutation to him”. Rabindra Nath Tagore correctly said, “A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame.” The Education Commission (1964-66) rightly professed, “The destiny of India is now being shaped in her classrooms”.

The community establishes schools for progress, preservation and enrichment of its traditions and conventions. The teacher education programme is necessary to provide professional, efficient and really capable teachers. Teacher education started its development from the ancient education system and still the present system of teacher education taking shape according to the global and local needs of the Indian society. History of teacher education in India can be classified into two parts. The first part deals with teacher education during pre-independent India, which starts from ancient education system of education, till India got independence and the second part deals with teacher education during post independent India, that is after independence till present year. Teaching is the noblest among all professions, since the progress of a country depends upon the quality of its teachers. The Kothari commission (1964) recommends the introduction of a “sound programme of professional education of teachers”. Teaching has been one of the most respected and oldest professions in the world. The functions, role, competence and preparation of teachers have undergone a dramatic change from time to time, but the need for qualified teachers has been imperative for all times. The changing times as well as the requirements of the society have demanded changes in the ways of teacher preparation.
Meaning of Teacher Education

It is well known that the quality and extent of student achievement are determined mostly by teacher competency, sensitivity and teacher motivation. The NCTE has defined teacher education as – A programme of education, research and training of persons, teach from pre-primary to higher education level. Teacher education is a programme that is related to the development of teacher competence and expertise that would empower the teacher to meet the requirements of the profession and face the challenges in that.

Goods Dictionary of Education defines Teacher education as, “all the formal and non-formal activities and experiences that help to qualify a person to assume responsibilities of a member of the educational profession or to discharge his responsibilities more effectively.”

Until 1956, the program of teacher preparation was called teacher training. It prepared teachers as technicians or mechanics. It had limited goals with its focus being only on skill development. As W.H. Kilpatrick put it, “Training is given to animals and circus performers, while education is to human beings.” The perspective and scope of teacher education was therefore very limited.

Teacher education is a combination of teaching skills, pedagogical theory and professional skills would help to create the correct attitude, knowledge and skills in teachers, hence promoting their holistic development. Pedagogical theory includes the philosophical, sociological and psychological considerations that would facilitate the teachers to have a comprehensive basis for practicing the teaching skills in the classroom. Teaching skills would include providing knowledge and practice in the different techniques, strategies and methodologies that would help the teachers to plan and teach, provide appropriate reinforcement and conduct effective assessment. It
contains classroom management skills, preparation and use of teaching aids and communication skills. Professional skills include the techniques, methodologies and tactics that would help teachers to grow in the teaching profession and also work towards the growth of the profession. It consists of soft skills, interpersonal skills, counselling skills, computer skills, information processing skills and above all, lifelong learning skills.

**Relevance of Teacher Education**

Kothari commission (1964-1966) observed, “of all the different factors which influence the quality of education and its contribution to national development, the quality, competence, and character of teachers are undoubtedly the most significant”. Therefore, there should be enough supply of intelligent individuals to the teaching profession with best professional education and all right conditions for their work.

Thus, a sound programme of professional education of school and college teachers is essential for the qualitative improvement of education. Investment in teacher education can bring rich dividends, because the financial resources required are insignificant when measure against the resulting improvement in the education of millions of boys and girls. A teacher generally tries to teach in the way he himself taught by his favourite teachers during his own school and college days. He tries to perpetuate the traditional methods of teaching. Therefore, India should develop effective professional education, which may initiate the teachers to the most needed revolution in teaching and lay the foundations for their professional growth and lifelong education. All the teachers should be trained, but there should not be and also cannot be a specific training of teachers. Even the born teachers have to study the technique of teaching craft. There are teachers who have acquired enormous success in teaching through training and experiences.
Much wastage in teaching effort can be saved if the prospective teacher is subjected to teacher education situations conducive for the actualisation of potential in him. A good deal of a wastage in teacher’s effort might be avoided by training. But a teacher is not a teaching craft man. He has to help his students to develop certain personality traits and also to realize desirable values. In the past, training of teachers was born out of the necessity to bring up a literate generation and to accomplish this task.

The schools of today lay emphasis on an integrated and balanced personality of the teacher as a whole man. The teacher of today, must be the teacher of the whole man. He never be this unless he is himself a complete man. We teach more by our actions than by preaching. Training cannot be a matter of teaching professional tricks. It is antipathetic to those generous sympathies and that consciousness of being one member in a self-education community, generally demanded from teachers. The new teacher will have to integrate the skills of teaching with his life style and also to help the students to develop not only intellectually but also emotionally.

Teachers are the sections of the community sharply segregated from the rest preparing themselves for their life’s work in institutions for developing human attributes. The teacher education system as it exists today fails to educate the human beings. The trained teacher is too often an untrained human being. The era of training of teachers is past; we are concerned with the education of educators. With proper type of education to the prospective teacher, he will be in a more favourable position to correlate his knowledge with his experience, to see life steadily and to see it as a whole. Therefore, the prospective teacher must be offered opportunities to associate with the best minds and to develop a disciplined intellect as well as the quality of appreciation of culture in its various forms. He will have emotional life developed to a fine sensitivity but held in a strict control.
Today’s teacher needs a philosophy primarily concerned with human beings to interact with each other. Humanistic programme for teacher education, seeks to develop a human teacher possessing such qualities as spontaneity, acceptance, creativity and self-realization. Competence and professional skills are the very heart of the teacher education programme. The knowledge of the methods adopted by other teachers combine with other considerations will make the student try out various approaches to his work and during the practical work of the course. Thus, a practising teacher generally evolves and polishes his own method. He acquires technical skills in practise and not in lecture room. He should know the techniques and procedures to be adopted in his profession. He should be able to effectively perform of his duties. Professional education should concentrate on the person as an individual who is in practise and seeks to expand his emotional mental and moral capacities. He should have a sound philosophy of education, knowledge of functioning of psychology along with dynamic sociological outlook. Only such teachers will be to relate theoretical insight to practise and to improve preparation programme. They will be effective practitioners in their profession. Teacher education seeks to develop such proficiencies in the prospective teachers which will make them successful teachers. It helps to improve the skills of the teacher to deal with a range of individual differences.

The teacher of tomorrow would design teaching situation beneficial to the growth of pupil’s mental health. It would help learners, in developing commitment to a set of values, certain skills and competencies. The teacher requires a new type of knowledge, an attitude, facility and atmosphere to make his task fruitful, easy and confirming for the demands of the students. His education, therefore should be in harmony with the necessities of the time and needs of the society.
Teaching is a professional activity which requires specific knowledge, skill and behaviour. Teacher professionalism consist of competence, performance and behaviour which reflect on teacher’s personality in school and society. Professional competence is essential in teaching profession which contains acquisition of knowledge of subject, preparation of teacher for classroom processes, and facilitates personality development of children. Competencies of an effective teacher involve interpersonal communication, pedagogical empowerment and leadership. Professional competence helps in performance of teacher in terms of overall development of students. The competent teacher is expected to perform in the better interest of the children and society as well. It has been aptly remarked, “If you educate a boy, you educate one individual but if you educate a girl, you educate the whole family and if you educate a teacher, you educate the whole community”.

Teacher education is not merely teaching the teachers on how to teach. It is to ignite his initiative, to keep it alive, to curtail the evils of the “hit and miss” process and to save time, money, energy and trouble with the teacher and student. Teacher education is needed for developing a purpose and for the establishment of a positive attitude towards the profession. The success of the educational process depends to a greater extent on the characteristics and the ability of the teacher, who is the foundation stone of the arch of education. At present teachers are not the mere transmitters of information but facilitators in the path of students craving for more knowledge. The existing teacher training institutions of the state have yet to do a lot of teachers in order to articulate innovations in terms of approach and pedagogy for qualitative improvement of school education so that they can satisfy the various demands of the student community.

Quality education is a pre-requisite for national, regional and global development. For delivery of quality education, we need high quality teachers
who are committed to teaching and equipped with necessary knowledge, skills and competencies for effective teaching. For teachers to be more effective and quality professionals, teacher education must be brought into the mainstream of the academic life of our institutions at all levels. Planning and implementation of exhaustive, futuristic, and judicious reforms and recommendations can create a real breakthrough and vitalize teacher education.

**Quality of Teacher Education**

The success of a learner mostly depends on the quality of his teachers. With the advent of global and techno accelerated developments, raising the quality of teachers at par with the demands has become a major apprehension and challenging task for the policy makers, universities and colleges and this responsibility are weighed down further on the colleges of teacher education, and the public in general. The question of quality assurance and relevance gained some urgency as a result of National Policy on Education (1986). Quality assurance needs to be pursued in all fields of education, especially teacher education by realizing empirical basis for relevant and efficient teacher preparation programme. It is in this context, the research in this area investigates not only what exists today but what is required for the future become a priority.

Teachers are the ultimate assets and backbone of any education system. The National Policy of Education 1986 rightly accepted the influence of teachers in these words, “The status of the teacher reflects the socio-cultural ethos of a society. It is said that no people can rise above the level of its teachers” Teacher quality is therefore crucial and has been globally accepted to be significantly associated with the quality of education in general and students learning outcomes in particular. The role of Teacher Education
Institutions in providing quality teachers for national development is well established, by providing the teachers with the opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity and equipping them with specialized knowledge and skills to help the young learners to tackle these problems. The most effective way to develop quality teachers in a dynamic and changing environment is to begin with a well-developed pre-service teacher education programmes and with continuous professional development opportunities (Denis Hayef, 2008).

Teacher education Institutions play an important role in shaping the destiny of the country. The success of any educational system depends largely on a sound programme of teacher education and quality of teachers produced by Teacher Education Institutions. It is important that the right kinds of teachers are engaged in the teaching profession with the best possible training to ensure students achievement and progress. (Aggarwal, 1988). Hence enhancing the quality of teacher education programme to ensure quality education is the need of the hour.

Teacher education is the process of providing teachers and potential teachers with the skills and knowledge necessary to teach effectively in a classroom environment. Quality of education plays important role in the process of development of nations. Hence, quality concerns in education are national priorities for all nations. The dimensions of quality in education include achieving pre-determined targets and objectives. Enlightened, unfettered and empowered teachers lead nations and communities in their journey towards better and advanced quality of life. They disclose and elaborate the secrets of accomplishing higher values in life and nurture empathy towards all. They not only spread knowledge but also develop and generate new knowledge. They are conscientious for the acculturating role of education.
Quality Indicators of Teacher Education

National Assessment and Accreditation Council (NAAC) has identified the following seven quality criteria’s as the basis for its assessment and accreditation of teacher education institution with an assumption that these seven criteria encompass all the processes of a teacher education institution:


2. Teaching-Learning and Evaluation: it includes Admission Process and Student Profile Catering to diverse needs Teaching – learning process Teacher Quality Evaluation Processes and Reforms Best Practices in Teaching Learning and Evaluation

3. Research, Consultancy and Extension: this dimension includes Promotion of Research, Research and Publication Output Consultancy Extension Activities Collaborations Best Practices in Research, Consultancy and Extension

4. Infrastructure and Learning Resources: it deals with Physical Infrastructure Maintenance of Infrastructure Library as Learning Resource ICT as Learning Resource Other Facilities Best Practices in Infrastructure and Learning Resources

5. Student Support and Progression: it includes Student Progression Student Support Student Activities Best Practices in Student Support and Progression

6. Governance and Leadership: it includes Institutional vision and Leadership Organizational Arrangements Strategy Development and


**Issues and Challenges of Teacher Education**

**Problem of selection**

Defects of selection procedure lead to deterioration of the quality of teachers. The enhanced selection method would not only improve the quality of training but also save the personal and social wastage.

**Lack of uniformity and Unhealthy financial conditions of the colleges of education**

There are several types of teacher education institutions. For the past few years our country witnessed the mushrooming growth of teacher education institutions. There is no uniformity in the curricular and co-curricular activities and instructional methods followed in these institutions. Most of the teacher education institutions lack sound financial conditions which is necessary for providing adequate infrastructural and other academic facilities for student teachers.

**Incompetent of student teachers and teacher educators**

Most of the current teacher training programme does not provide adequate opportunities to the student teachers to develop competency because, the organizers of teacher's training programme are not informed of the existing problems of student teachers. Inappropriate selection of teacher educators is another issue which deserves serious concern. Most of the teacher
educators do not have the necessary academic skill and pedagogical content knowledge, which is necessary for the proper development of learning skill among the student teachers.

**Problems of practice teaching and supervision of teaching**

In spite of all types of ostentatious arrangements related to practice in teaching, student teachers are non-serious to the task of teaching. The supervisory organization, for practice teaching aims at bringing improvement in the instructional activity of the student teachers by using various techniques and practical skills in teaching and helps them to develop confidence in facing the classroom situations.

**Lack of innovation in methods of teaching**

In India teacher educators are unenthusiastic to innovation and experimentation in the use of modern methods of teaching. Their understanding with modern class-room communication devices is trivial.

**Isolation of teacher’s education department**

As observed by education commission, “the teacher education has become isolated from schools and current development in school education. The schools consider the teacher education department as an alien institution and not a nursery for the professional development of school teacher.” These departments only observe the formality of finishing the suggested number of topics without caring for the sounders of pedagogy involved in the procedure.

**Poor academic background of student-teachers**

Most of candidates do not possess the required motivation and an academic background for a well-deserved entry in the teaching profession.
Lack of proper facilities

In India, the teacher education programme is being given enough importance. Most of the teacher education institutions does not have own buildings, and they are running without any facility for an experimental school or laboratory, library and other equipment’s necessary for a good teacher education department.

Unplanned and insufficient co-curricular activities

Teacher education mainly intended to total development of student teachers. Active participation of student teachers in the co-curricular activities conducted by the institution helps in the development of many types of social skills. But most of the teacher education institutions do not give any importance to co-curricular activities.

Lack of regulations in demand and supply

The State Education Department do not collect enough data, on the basis of which they may work out the desired intake for their institutions. There is a considerable lag between the demand and supply of teachers. This has created the challenges of unemployment and under-employment

Lack of facilities for professional development

Most of the programs are being conducted in a habitual and unimaginative manner. Even the association of teacher educators has not provided anything towards development of a sound professionalization of teacher education in the country.

Insufficient financial grants
In India, teacher education in most of the states is still being run by the fee collected from student teachers, as the share of state grant is too small.

**Research in teacher education**

Research is to be treated as an integral part of education and development Activities conducted at different stages of teacher education programmes. Empowering teachers as well as teacher educators of different stages for conducting relevant and need based research studies is the prime focus of in-service as well as preservice teacher education programmes. Teacher education is an important field for research since the quality of teacher education has been regularly questioned. At the same time as teacher quality is increasing being identified as crucial to educational outcomes and pupil gains. Consequently, teacher education researcher need to work together in order to Share emerging research findings.

The nature of research needs to be context specific, problem oriented, intervention type and development oriented Teaching, like other professions, has a developing knowledge base that serves to guide practitioners. Knowledge generated by research is an important component of this knowledge. Teacher education and staff development programme might be considered to be a central avenue of knowledge dissemination on one hand, and of practicing its use in varied contexts on the other hand. The curriculum of teacher education and the text books they use, determine what aspects of research knowledge will be brought to the attention of becoming teachers. The practicum and teacher induction programmes might serve student teachers and novices in learning how to use this knowledge base. Research findings constitute a regular feature of teacher education courses in the foundation disciplines, like psychology, and in method courses, but the translation of the findings into class-room action is usually given to the
student teachers who find this an enormously difficult or even impractical task.

**Historical Perspectives of Teacher education**

This section gives details about the important landmarks in the development of teacher education in India during pre-independence and post-independence period.

**Teacher education in pre-independence period**

The history of teacher education in India is as old as the history of education and the history of Indian education is as old as the history of human civilisation, hence it seems to be correct that the concept of informal teacher education must have been born in India during early ancient Indian period i.e. in 2500 B.C. According to R. S. Pandey (1992), “Ancient Indian has been a colourful and glorious country of literature, in the form of Vedas, Brahmans, Upanishads, Brahma sutras and the work of Aryabhata, Panini, Katyayana, Patanjali, Vysasa, Valmiki, Kalidasa and so many other authors and poets. try with great educational traditions, rich Sanskrit language, many standards of art and architecture, vast stories during ancient period itself with great educational traditions India had developed a very sound educational system and was well recognised as the world leader in the field of knowledge. The pre-independence (1947 A.D) era concerning the history of teacher education in India may be divided into four parts.

I. Ancient and medieval period (2500 B.C - 500 B.C)
II. Buddhist period (500 B.C - 1200 A.D)
III. Muslim period (1200 A.D - 1700 A.D)
IV. British period (1700 A.D - 1947 A.D)
Ancient and medieval period (2500 B.C - 500 B.C). Initially for Hindu civilisation giving education means teaching of Vedas. Out of four classes of Hindu society, Brahmans served as teachers of the community devoting of themselves to the work of acquisition, conversation and promotion of knowledge and its transmission to future generations. It was their duty to learn in order to teach and also teach in order to learn. Thus, learned section of the Hindu community undertook the duty of serving as the educators of the pupils. According to the Varna system prevalent at that time in which each Varna was dedicated to particular profession Brahmans used to earn their livelihood by teaching. It was a hereditary process teaching profession continued from one generation to another. Manu says that the Brahmans alone shall teach Vedas and none else. There was no formal system of teachers training. Methods and techniques of teaching were very simple. A student relied completely on the word of the teacher. There was a close contact between the teacher and the taught.

Buddhist period (500 B.C - 1200 A. D). During Buddhist period teaching was considered as the noblest of all professions. During this age a vigorous, well elaborated and thorough system of training for the teaching profession started. Formal teachers training found its roots in this period comprising seven centuries. Teachers were trained for the purpose of propagating Buddhism. They were monks spreading the spirit of Buddhist religion to the people. To get the status of a teacher, one was kept under the mentoring of teachers for certain time, from whom he learns the elements of Morality, training in dharma and proper conduct. When the supervisors were satisfied, they gave a certificate that one is fit for the profession of teaching. The method of training teachers during Buddhist period was based on a system, which was later on recognised and named as Monitorial system.
**Muslim period (1200 A.D - 1700 A.D).** There was no formal system of teacher training during Muslim period. Education was public affair. Educational institutions were called Madrassa, where students were taught by Molvies. Education was mainly teaching of Quran. There was no formal training of teachers. Some Arabic schools provided more comprehensive and advanced course of study. Need of formal education was not recognised. No special professional training was required. Teachers were appointed under certain considerations other than mere academic qualifications. Institutions for regular education and training in teaching medicine, literature, art and music were not in present during this period. Educated people available in the country or abroad from Arabia was appointed as Molvies in the educational institution. Only Muslims were allowed to teach mokalis and madrassas.

**British period (1700 AD – 1947 AD).** The British’s changed the above educational system according to their own system, their need and philosophy. The monitorial system of training teachers and semiformal system of teachers training was not recognised by them. Their major goal in the field of education was to educate Indian children in British system. Formal system of teacher education was started by the British. A formal training centre established by Danish mission at west Bengal was the first step in the field of training the teachers in India. After this, at madras, Bombay and Calcutta three more institution called normal schools, were open for training the teachers. As the government took part in education, normal schools were opened at Pune, Surat and Calcutta.

Even though East India Company was established in India in 1600 A.D., it did not think about the education of Indians till 1698 A.D. Charter Act (1698) started the discussion about the education for the first time. The Charter Act gave the sole responsibility of starting and maintaining schools. Initially the provision was made for the children of company’s servants. But
by the end of eighteenth Century, the provision of providing western education was extended to general Indian children. Some educational societies and learned individuals started to train language teachers in Bengal.

The first normal school was established at Serumpur (Bengal) in 1793. The period of 1813 to 1853 is marked by the absence of educationists. Education department did not exist. Members of the education boards, councils and committees had no professional training or aptitude towards education. In 1819 the Calcutta school society began to train teachers for elementary schools. Elphinstone (1823) felt the need to make aware teachers with organisation and management of schools and one or two books on the subject. In 1826 Madras had a normal school for training teachers.

In 1824, Mrs. Wilson opened a Central Training School for both male and female teachers. In 1826 Madras Presidency, also a central training school was started and it was established for the education of superior teachers. During the same year, many teachers trained at Bombay in the Bell-Lancaster system were distributed to the whole Bombay Presidency.

William Adam (1835) in his famous report recommended that teachers training in the country should be improved. He suggested a number of measures to be taken for the improvement in teacher training. He also advised that the vernacular departments of English should be changed into normal schools. He also suggested a scheme for training in-service teachers.

In 1847, first normal school was launched at Elphinstone College in Bombay. In 1849, Alexander Duff also started a normal school at Calcutta. A normal training department was opened in 1851 at Poona College. In the same way, the normal training schools were also started functioning at Surat and Agra.
Danish Missionaries at Serampore (Bengal) started the first formal Teachers Training institution in India. It was established by Carey, Marshman and Ward. After this Dr. Andrew Bell employed the monitorial system in Madras during 1789 to 1796. This system, which came to be known as the Bell-Lancaster system later on, laid the foundations of teacher training system in the country.

Wood’s despatch (1854) popularly known as ‘Magna Carta of English education In India’ advocated the need of establishing teachers training institutions and of giving stipends to pupil teachers for the first time. The experts of the Committee said, “We cannot do better than refer you to the plan which has been adopted in Great Britain for this subject, and which appears to us to be capable of easy adaptation to India. It mainly consists in the selection and stipend of pupil teachers, their ultimate removal if they prove worthy, to normal schools; the issue to them of certificates on the completion of their training in these normal schools. Unfortunately, nothing was done in this direction.

In 1856, Government Normal Schools were set up at Madras and Banaras. In 1857, a Government Normal School was also established at Meerut. Now there were four training schools in Bengal at Hooghly, Dacca, Gauhati and Calcutta. By 1858, there were six normal schools in Madras at Mayavaram, Cheyur, Vellore, Mangalore, Berhampore and Ellore, whereas there were four training departments in Bombay at Poona, Ahmedabad, Dharwar and Karachi. By this time the political power in India was taken over by the British Crown. It is interesting to note that teacher education was one of the important sectors of education that received immediate attention of the government. Then the secretary of state for India,

In 1859, the Stanley’s despatch laying even greater emphasis on teacher training observed: “The institution of training schools does not seem
to have been carried out to the extent contemplated by the court of directors. In 1859, the new grant in aid rules provided that salary grants to schools be given or those teachers who had obtained a certificate of teacher training. The training of teachers received an increased attention as a result of this measure.

Monitorial System (1880) In India the idea of formal teacher training originated out of an indigenous technique, called ‘Monitorial System’. It was based on the principle of mutual instruction. It was worked out by splitting up a class into a number of small groups and by placing each group under the charge of brilliant pupil, called ‘monitor’. The monitor was assigned the duty of maintaining proper discipline and imparting individual as well as collective instructions to the students of his group. The monitors gained some proficiency in teaching and class control, which enabled them to teach independently in their later life.

The Indian education commission (1882) recommended that normal Schools-Government and aided, should be so localised as to provide for the local requirements of all primary schools under each inspector and an examination in the principles and practise of teaching should be started. In 1882, there existed 106 normal schools, including 15 institutions meant exclusively for women. there were three college level teacher training institutions one each in madras, Lahore and Nagpur. Examinations in theory and practise were conducted and model lessons, practise lessons and criticism lessons were in vogue. By the end of 19th century four more training colleges were established one each in Rajahmundry, Allahabad, kurseong and Jabalpur and the number of normal school was 50.

In 1886, the first training college to prepare secondary school teachers was set up at Saidapet in the Madras followed by the opening of a secondary department in the Nagpur training school in 1889. Towards the end of
nineteenth century, there were only six training colleges in India. In January 1886, the Government Normal School in Madras was upgraded as Teachers College and was affiliated to the Madras University. It prepared candidates for the L.T. diploma. This was really an encouraging step since teacher education was developing as a part of university education. In 1889, a Secondary Department was added to Nagpur Training School which later developed into Prantiya Prashikshan Mahavidyalaya Jubbalpore.

In 1892, 116 institutions for the training of men and 15 for the training of women existed throughout the country. Out of these, only 3 were of the collegiate Grade-Madras Teacher’s College, Lahore Central Training College and Nagpur Training Institution. The Maharajah’s Training College at Trivandrum was started in 1895 as a Government Normal School. The Isabella Thoburn College at Lucknow started a course for English Teachers” Certificate examination in 1896. At Kurseong, another training class for secondary teachers was started.

1899, Bombay instituted the Secondary Teachers” Certificate (S.T.C.) examination. The opening of 15 training institutions for women indicated an encouraging trend, obviously emphasizing the need for separate training schools for them with a view to help improve women education.

The period of 1901 to 1921 was that of intense political unrest in the country, which had its impact on educational situation also. In the early twentieth century, there existed only six training colleges in India – at Allahabad, Jubbulpore, Kurseong, Lahore, Rajahmundry and Saidapet.

In Education policy (1904) Lord Curzon, the viceroy of India, felt the need of the training teachers, it was boldly stated in the Government of India resolution on educational policy: “If the teaching in secondary schools is to be raised to a higher level- if the pupils are to cured in their tendency to rely
upon learning notes and textbooks by heart, If in a word, European knowledge is to be diffused between the methods proper to it, then it is most necessary that teachers should themselves be trained in the art of teaching”. About the content and duration of the course the education policy further state the following. “For the graduates the training courses should be one-year university course, leading to a university degree or diploma. The course should be clearly directed towards imparting to them knowledge of the principles which underline the art of teaching and some degree of technical skill in the practice of art. The training in the theory of teaching should be clearly associated with its practice, and for this purpose, good practising school should be attached to each college.” Curzon emphasised the need of providing many training institutions for primary teachers. He also emphasised the training of rural primary teachers in elementary agriculture. His declaration initiated a new era in the training of secondary school teachers. By 1912, there were 15 training colleges which imparted instruction to 1400 students.

In 1906, a Secondary Training College was set up in Bombay. It prepared secondary teachers for S.T.C. diploma. The David Hare Training College and the Teachers” Training College were opened in Calcutta and Patna respectively in the year 1908. The government resolution on educational policy (1913) stated "eventually under modern system of education no teacher should be allowed to teach without a certificate that he has qualified to do so". It also expressed the government’s desire to multiply and improve training colleges in order to ensure availability of trained teachers for public and private schools.

Calcutta university commission (1917-1919) Under the chairmanship of Sir Michael Sadler, the Calcutta university commission popularly known as Sadler commission recommended that department of education should set up
in each university with a professor of education as its head. It also suggested the need for attaching a small experimental school in addition to a large practising school, to a training college, the first to provide opportunity for educational experiments, the second to accustom the students in training to the methods which should be used in every good school under normal conditions of work. Due to these recommendations, the number of training schools increased. Some of the universities established their departments of education. Teacher training curricula were improved. In 1921-22 there were 13 training colleges for secondary teachers. Their number in 1904 was 6. A large output of trained teachers contributed to the quality improvement in secondary education.

During 1921 and 1937 the experiment of sharing governmental responsibility with the Indians was launched, and there was growing demand in the country for Independence. In the field of education, the controversy regarding quality versus quantity was also generated, and it was carried in due course to the field of teacher education as well.

In 1922, the Secondary Training College in Bombay was affiliated to the Bombay University and it awarded the B.T. degree and stopped conferring the S.T.C. diploma. In 1925, Lady wellington Training College was started in Madras. After two years, the first Faculty of Education was instituted in Mysore.

The Hartog committee (1929) found that only 44 percentages of teachers in primary schools were trained and only 22 percentages had completed middle course. In this connection, they recommended the following.

a. The standard of general education for primary teachers should be raised.

b. The duration of their training should be sufficiently long.
c. Primary training institutions should be well staffed for greater deficiency.

d. Frequent refresher courses and conferences should be arranged for the continued professional growth of the primary teachers already in service.

e. Upon these recommendations, the system of teacher training then prevalent in the country was reoriented on more progressive lines. In 1932 a new degree of B.Ed. was instituted for the first time by Andhra University. In 1936 Bombay University was the first to start postgraduate degree M.Ed. in education.

By 1932, 13 universities set up Faculties of Education and in the same year Lady Irwin College was established in New Delhi, and B.Ed. course was started by the Andhra University. Bombay was the first to start M.Ed. in 1936.

In 1937, the Government of India Act 1935 introduced provincial autonomy under which the Indian Ministers of Education had considerable executive powers. The Central Advisory Board of Education was revived in 1935 which undertook the study of the educational problems in the country. Also, organized attempts were made for the first time to remove mass illiteracy and Basic Education or Wardha Scheme was initiated by Mahatma Gandhi in the year 1937. Consequently, training for teachers of basic was initiated. In 1938, a Basic Training College was started in Allahbad and in 1937-38, Vidyamandir Training School was established at Wardha. Abbott-Wood Report, another significant landmark in the history of Indian education, was submitted in 1937. It examined the system of teacher education and expressed sorrow at the unsatisfactory working condition of the teaching class. The Report suggested: “… that the Normal School concerns itself with the social “why” of education as well as with the technical “how” of teaching. If the teacher appreciates his task as an educator, and realises the significance
of the school in the life of the communities, he may become proud of his vocation and resist temptations to bring discredit upon it.” In 1937 there were 346 normal schools for men, 191 normal schools for women and 23 training colleges. The Abbot-wood report (1937) emphasised the need to arrange refresher courses for teachers and start a vocational teacher’s college. The Tilak college of education, Pune was established in 1941.

Sergeant report (1944) recommended that persons suitable for teacher’s job should be selected during last two years of their high school course, teacher trainees should receive stipends, refresher courses, should be organised for in-service education of teachers: duration of training pre-primary, junior basic, senior basic, under graduates and graduate teachers should be 2, 2, 3, 2, and 1 year respectively; and research facilities should be provided. The period from 1937 to 1947 has witnessed rapid development of teacher education. The number of training colleges increased from 23 to 42 while the number of normal schools increased from 537 to 650. In 1937 56.6% male teachers and 65.4% female teachers were untrained but in 1947 this percentage was 53.2 and 63.3 respectively.

Early in 1944, the Central Advisory Board of Education presented a scheme of education, popularly known as the “Sargent Scheme” based on the Report presented by John Sargent, the then Secretary of Education. The scheme proposed a plan of educational reconstruction and aimed at creating in India in a period of not less than 40 years the same standard of educational attainments as already existed then in England. Regarding the recruitment and training of teachers, the Report suggested that one teacher was required for every 30 pupils in Pre-basic and Junior Basic School, for every 25 pupils in Senior Basic Schools and for every 20 pupils in High Schools. The minimum qualification for a teacher was the completion of High School course followed by a training of two years in case of teachers in Pre-basic and Junior Basic
Schools and three years in Senior Basic Schools. The non-graduate teacher’s in High Schools were to undergo a training course of two years and the graduates would receive one year’s training. It further suggested that refresher courses be organized at intervals in order to keep the trained teachers up-to-date. The Report emphasized the employment of such teachers only as were fully qualified and trained. To attract better stuff, the Report proposed to revise the scales of pay off all categories of teachers.

Though after the Second World War the country had to pass through very difficult times, yet measures for the improvement of teacher education were carried on to some extent. In 1941, the Vidya Bhawan Teachers’ College in Rajasthan came into existence, the Tilak College of Education was opened in Poona, and Bombay started a doctorate degree in Education.

**Teacher Education Progress in The Post-Independence Period**

The national scenario of Teacher Education impacted by the emerging socioeconomic and political situation after Independence. The Indian Government set-up different Commissions and Committees for focusing on the specific issues of education in general and Teacher Education in particular. Attempts were made to clear the backlog of large number of untrained teachers. Pertaining to both quality and quantity were the main apprehensions of teacher education. In 1948 the Government Training College at Allahabad was developed into the Central Pedagogical Institute. Also, The Central Institute of Education was established in Delhi.

Educators, political leaders and social reformers of India during its fight for independence, which include Swami dayand saraswathy, Annie Besant, Swami Vivekananda, Ravindra Nath Tagore, Madan Mohan malaviya, Mahatma Gandhi, Dr. S. Radhakrisnan and Acharya Vinoba bhave, lay emphasis on the need for proper education for the good of the nation,
therefore Government of India just after independence took the task of reform of Indian education on priority basis.

University education commission (1948-1949) was appointed in free India in 1948 under the chairmanship of Late Dr. S. Radhakrishnan, the first commission in the name of University education commission critically scanned the teacher training programme and reported that, “Our main criticism of the existing courses is that too little time is given to school practice, too little weight is given to practice in assessing the students’ performance, and conditions of school practice are often unsatisfactory, sometimes quite grossly unsatisfactory. In some places during the whole of his course, a student is required to give only five lessons.” Recommendations are:

More emphasis should be on practice teaching, as compared to knowledge of theory. Suitable schools should be selected for practice teaching. Teachers having experience of teaching in schools should be appointed in training colleges unintelligent following of rule of thumb methods should be thrown away. Curriculum for theory of education should be flexible and adaptable to local circumstances. Teachers having teaching experience should be encouraged to do M.Ed.

The First Conference of All India Training Colleges was conducted at Baroda in 1950 and it established a platform for all training colleges in the country to gather to discuss common problems and seek their solutions. Second All India Conference was held at Mysore next year. It viewed teacher preparation in a broader perspective and substituted the word “Education” for “Training”. Since then there was a wave of seminars, workshops, symposia and conferences and much thinking and debate was happened in the field of teacher education.
The secondary education commission (1952-53) analysed the problems of teachers and the training programme in great extent. It highlighted that the most important factor in educational reforms is the teacher, his educational qualifications, his personal qualities, his professional training and the place he occupies in the school as well as in the community. So, the Commission made proposals on all these aspects and identified two types of teacher training institutions viz., (a) Primary (Basic) Teacher Training, and (b) Secondary Teacher Training Institution. It suggested two types of courses: (i) for those who have taken the school leaving certificate, the period of training be two years, (ii) for graduates, presently of one academic year but extended as a long-term programme to two academic years. The graduate training institutions should be affiliated to the universities which should grant the degree, while the secondary grade training institutions should be under the control of a separate Board. It commended to initiate training in co-curricular activities, research work and refresher courses for the M.Ed. degree. It recommended three-year teaching experience after graduation in education for M.Ed. Admission. The zest for seminars, work-shops, etc., led to the formation of Extension Centres. The All India Council for Secondary Education was founded in 1995. The Council through its Extension Centres imparted in-service education. In 1957, the All India Council for Elementary Education was established. The Second Five Year Plan was started in 1955-56 and it was envisioned that 68 per cent of teachers would be trained by 1960. A number of Rupees, 17 crores were allocated for increasing training facilities. All India Council of Secondary Education Established an Examination Reform Unit in 1951. The Directorate of Extension Programme for secondary education was set-up in 1959 to organize and run the extension programmes. In the same year, the Central Institute of English was founded at Hyderabad to train teachers in English and to conduct research in the field.
Government of India in collaboration with Ford Foundation employed an International team of eight experts in 1954 that studied in greater detail the major recommendations of Secondary Education Commission and suggested that the training institutions should organize and conduct demonstration or laboratory schools where experiments are made in curriculum construction and progressive methods of teaching are used.

Pires Committee (1956) committee proposed that practical work and the theory portion should be given equal weightage. The examination papers should be decreased to four as stated below-

1. Methods of Teaching Two School Subjects
2. Current Problems in Indian Education.
3. Principles of Education and School Organization
4. Educational Psychology and Health Education

In 1956 government of India decided to provide in-service training provisions for secondary school teachers and begin extension service centres in about 23 teachers training colleges. The ministry of education gave financial assistance to these centres with the help from the ford foundation of U.S.A. later programme was extended to primary school teachers and extension service centres were established in primary teachers training colleges as well.

Under the chairmanship of Dr. S. Kothari, the education commission showed intense interest in teacher education. The commission studied in its various aspects and dedicated full one chapter, giving their recommendations and observations. The commission remarked: “a sound programme of professional education of teachers is essential for the qualitative improvement of education. In the absence of other influences, a teacher tries to teach in which he himself was taught by his favourite teachers and thus tends to
perpetuate the traditional methods of teaching”. The commission observed that the core of a teacher education curriculum is quality. In its absence, the teacher education becomes a financial waste, a source of all over deterioration of educational standards. The commission comprehended that the existing programmes are largely traditional, rigid and detached from the realities of the schools and devoid of proposed programmes of educational reconstruction.

The commission asked for the reorientation of the subject knowledge of the trainees. The commission proposed that provision must be made in all the training colleges for a study of the subjects to be taught, in depth as well as in range. It should be a carefully planned content course including a study of fundamental concepts and their implications for the school syllabus, and of the textbooks and emerging source material to assist teaching at the school stage.

In October 1969, the first National Seminar on the Education of Primary Teachers was held. The findings of the seminar were added in the Report of the Study Group on the training for Elementary Education. The findings reflected a worrying state of affairs. The institutions were poorly equipped and staffed and that every teacher should be trained and the State Government should plan a phased programme to attain the targets. It proposed selection of some training institutions as models for developing primary teacher education on the right lines. Optimum size of training institutions should be 200 trainees. It also recommended that Primary school teachers should also be included in the extension programmes. It advised the setting up of State Institutes of Education. During 1962-63 Extension Training Centres in Primary Teacher Education Institutions started operating. By 1964, The State Institutes of Education were started and a Department of Teacher Education was established at the National Institute of Education.
National policy on teacher education in 1968, comments on the role of teachers: “The status of the teacher reflects the socio-cultural ethics of a society: “it is said that no people can rise above the level of its teachers. The government and the community should endeavour to create conditions which will help motivate and inspire teachers on constructive and creative lines. Teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs and capabilities and the concerns of the community”. National policy of education (1968) resolute that teachers must be rendered an honoured place in society. Their remunerations and other service conditions should be adequate and satisfactory having regard to their qualifications and responsibilities. The academic freedom of teachers to pursue and publish independent studies and researches and to speak and write about significant national and international issues should be protected. Teacher education, particularly in-service education should receive due emphasize.

In 1973 Government of India set up a National council of teacher education the national policy on education. The national policy on education (1979) made the following recommendations suitable steps should be taken to improve professional competence of teachers at all levels. The academic freedom of teachers to conduct research and make experiments and innovations will be assured the curriculum of teacher education at the elementary and secondary stages, will be suitably changed in order to enable teachers to play their proper role in reforming education. Pedagogical and professional preparations for teachers in higher education should also be provided, Facilities for in-service training will be expanded, enters for developing curricular materials and teaching aids will be established, especially for the benefit of teachers in rural areas and both formal and non-formal systems of education
In 1975 through the 42nd Amendment of the Constitution, Education was brought to the Concurrent list. Change of Government at the Centre, brought a commitment to education and some other important changes were witnessed in the eighties.

The document challenges of education a policy perspective states that during 1950-83, the total number of teachers increased from 7.5 lakhs to more than 32 lakhs, yielding the growth rate of 4.6 percent per annum. While the number of primary school teachers increased at the rate of 3 percent annum, the highest rate of growth was registered in the case of middle school teachers (7.5 percent). The increase in the number of female teachers was swifter than that of male teachers at each level of education. In 1982-83, the percentage of trained teachers increased to 88.4 from 56.1 in 1949-50. The growth in enrolment in teacher training courses has been 2.6 % per annum: girls’ enrolment in teacher training grew much faster at the rate of 5.1 % per annum.

In 1983 the government of India set up two national commissions on teachers to advise on various aspects related to teachers. The first commissions considered matters related to school level teachers. Prof. D. P. Chattopadhyaya was its chairman. Prof. Rai Ahamad was the chairman of second commission on teachers in higher education. The commission recommended establishment of at least one college in each state offering four-year integrated course, convert elementary teacher training to two-year course after plus two, providing teacher education only to those who are appointed as or chosen for recruitment of teachers, in-service characteristics of teacher training course and arrangement of workshops for preparing teaching aids by teachers, utilizing for themselves. The commission also proposed in-service education after every five years, refresher courses and orientation courses just after entering the teaching profession.
In August 1985, the Government of India brought out a document "The Challenge of Education: A Policy Perspective." This envisioned an educational system which would prepare the youth for facing the 21st century challenges. The document acknowledged teacher performance as the most crucial input in the field of education, but lamented that much of teacher education was irrelevant, that selection procedures and recruitment systems were inappropriate and the teaching was still the last choice in the job market. It laid emphasis on aptitude for teaching in the entrants on reorganization of the teacher education programme and on in-service education. The document was discussed widely in the country and the suggestions of the educationists, thinkers and workers were submitted to the Government of India for inclusion in the Education Policy, 1986.

The District Institutes for Educational Training (DIETs) were established as a follow-up of the National Policy on Education, 1986. DIETs are the main training provider for the initial training of elementary teachers in most of the states. Now DIETs function in in-service and pre-service areas of teacher training, research and extension, planning, management, curriculum and materials development. Besides the establishment of various councils and apex bodies, schemes like District Primary Education Programme (DPEP), during 1990s and various curricular reforms, made their own impact on the teacher education system from time to time. Now the teacher education in the country has grown up to organise a number of courses at various levels.

In NPE (National policy on education)1986, more emphasis was given to the teacher education programme. Many training schools were upgraded to District Institutes of Education and Training (DIETs) and training colleges were transformed into Colleges of Teacher Education (CTEs) and Institutes of Advanced Studies in Education (IASEs). There were provisions for research and innovation in IASEs. The National Policy on Education, 1992 also
highlighted the functioning of teacher education institutions. There has been development in terms of both curriculum transaction and infrastructure as per the NPE and POA, 1986 and 1992. A lot of money is being expended on infrastructural improvement and organization of various in-service programmes. There were 45 DIETs, 76 CTEs and 34 IASEs by the year 1998-99. But in spite of all these quality improvements on teacher education is found very marginal. The NCTE has also tried to impose the norms and conditions for recognition of these training institutions. NCTE received 2426 applications during the year 1998-99 from the existing training institutions for recognition and conducting teacher training courses. 408 institutions granted recognition and to 1294 institutions given provisional recognition. Similarly, 1349 applications were received for starting new institutions and courses, out of them recognition was bestowed only to 277 new institutions or courses. Besides, provisional recognition was accorded to 1035 institutions.

During 1990’s the NPE was revised by Acharya Ramamurthy Committee (1990) and it gave a humane approach to education emphasizing more on value oriented education. It also saw the emergence of NCTE as a statutory body of the Govt. of India when NCTE Act of 1993 was passed by parliament. NCTE came into effect on 17th August 1995 for planned and coordinated development of teacher education system across the country. Liberalisation, Privatization and Globalisation (LPG) policy was started during this period when Indian market was opened to foreigners and free trade and commerce was promoted.

Yashpal Committee (1993) recommended that “the content of the (teacher preparation) programme should be restructured to ensure its relevance to the changing needs of school education. The emphasising these programmes should be on enabling the trainees to acquire the ability for self-learning and independent thinking.”
National curriculum framework (2005). National curriculum framework (2005) give emphasis to all pedagogic efforts which includes the creation of syllabi and preparation of textbooks for the primary classes should be planned honoring the core values of Early Childhood Care and Education (ECCE). It discusses the nature of knowledge and children’s own strategies of learning as a theoretical basis of the suggestion it makes. NCF suggest that teaching should target developing children’s natural desire and strategies to learn and that knowledge should be differentiated from information. NCF advises on enabling children to learn and express themselves through a variety of activities and suggest systemic reforms in the school system – the manner in which physical setting is visualised and the quality standards defined (NCERT, 2005). NCF proposes the relaxing of differences between the four core subjects namely Languages, Mathematics, Natural Sciences and Social Sciences to foster integrated knowledge. It also insists on the revision of textbooks and pays special consideration to the study and practice of health and physical education, arts and crafts education and peace. A new policy titled Continuous and Comprehensive Evaluation (CCE) was initiated by the Department of Education for evaluating student learning.

NCF 2005 is no longer an advisory policy document, with the ratification of the Right to Education Act (RTE). As per the Right to Education Act, NCF 2005 became mandatory till the central government in consultation with the state governments drafted a new framework in 2009. RTE reverberates with NCF 2005 in demanding the education authorities to develop curricula and evaluation procedures in accordance with the values enshrined in the constitution. RTE emphasises the need for the curricula and evaluation methods to ensure the all-round development of the child through a system of child friendly and child centred learning. Fortified by this development, various state education departments have begun formalising
State Curriculum Framework based on the principles motivating RTE and NCF.

Kerala curriculum framework (2007). The Government of Kerala set the direction for the educational system by declaring that the state would provide for: “compulsory primary education for all educational expenditure of all children.”

Major initiatives taken by the successive governments of Kerala:

- Providing text books at low prices
- Withdrawing tuition fee
- Allowing concessional rate for students’ conveyance
- Providing free lunch in schools
- Ensuring at least one high school in every panchayat
- Adopting new approach for promotions to higher classes
- Expanding vocational and technical education
- Taking steps for ensuring higher secondary education for all
- Bringing higher secondary within the fold of school education
- Envisioning it as a part of the curriculum
- Launching of EDUSAT and Victers channels
- Strengthening the school library system

The following initiatives of central and state governments like launching Operation Blackboard (OB) scheme, launching Special Orientation for Primary Teachers (SOPT), establishing State Council of Educational Research and Training (SCERT) setting up District Institutes of Education and Training (DIET), establishing Colleges of Teacher Education (CTE) and
Institute of Advanced Studies in Education (IASE) mark their commitment to provide quality education

**National knowledge commission (2008).** National Knowledge Commission (2008) observed that the training of teachers was a major area of concern at present, since both pre-service and in-service training of school teachers was extremely inadequate and also poorly managed in most states. It further said that pre-service training needed to be improved and differently regulated in both public and private institutions, while systems for in-service training required expansion and major reform that allowed for greater flexibility.

**National Curriculum Framework for Teacher Education (NCFTE) 2009.** Major Recommendation of NCFTE on teacher education are:

Teacher education must engage with theory along with field experiences to help trainees to view knowledge not as external to the learner but as something that is actively constructed during learning. Teacher education should blend in academic knowledge and professional learning into a meaningful single entity.

Teachers need to be trained in organizing learner-centred, activity-based, participatory learning experiences – play, projects, discussion, dialogue, observation, visits, integrating academic learning with productive work. Teacher education should involve teachers with the curriculum and textbooks to critically look at them rather than agree to take them as provided and recognizing them without question.

Teacher education should supply opportunity to student-teachers for reflection and independent study without bundling the training schedule with
teacher-directed activities alone. The program should involve teachers with children in classrooms rather than teach them about children by means of theories alone. The programmes should help them understand the psycho-social attributes and needs of learners, their special abilities and characteristics, their preferred mode of cognition, motivation and learning resulting from home and community socialization.

The program should assist teachers or future teachers to cultivate social sensitivity and consciousness and finer human sensibilities. Teacher education programmes need to develop the curriculum (both school and teacher education) to include different traditions of knowledge; educate teachers to bond school knowledge with community knowledge and life beyond the school. Teacher education programmes need to help teachers appreciate the potential of hands-on experience as a pedagogic medium both inside and outside the classroom; and work as integral to the process of education.

Assimilate academic learning with social and personal realities of learners, responding to challenges in the classroom. Promote values of peace, democratic way of life, equality, justice, liberty, fraternity, secularism and zeal for social reconstruction.

**The Right of Children to Free and Compulsory Education Act, 2009 (RTE 2009).** Right of Children to Free and Compulsory Education (RTE) Act, 2009 is an act passed by Indian parliament in order to ensure to all children of the age of six to fourteen years with free and compulsory education. According to RTE act. Every child of the age of six to fourteen years, shall have the right to free and compulsory education in a neighbourhood school till the completion of his or her elementary education. Even a child with disability shall have the same rights for free and compulsory elementary school education. In case of a child with multiple
disabilities also have the right to ask for home-based education. The act also states that: “Where a child above six years of age has not been admitted in any school or though admitted, could not complete his or her elementary education, then, he or she shall be admitted in a class appropriate to his or her age. Provided that where a child is directly admitted in a class appropriate to his or her age, then, he or she shall, in order to be at par with others, have a right to receive special training, in such manner, and within such time-limits, as may be prescribed. Provided further that a child so admitted to elementary education shall be entitled to free education till completion of elementary education even after fourteen years.”

As per the RTE act section 23, 24, and 29, the duties of teachers are: “Regularity and punctuality in attending school should be Maintained. Conduct and complete the curriculum in accordance. Complete entire curriculum within the specified time. Assess the learning ability of each child and accordingly supplement additional instructions, if any, as required. Hold regular meetings with parents and guardians and apprise them about the regularity in attendance, ability to learn, progress made in learning and any other relevant information about the child. Perform such other duties as may be prescribed. A teacher violating his duties have to face disciplinary action under the service rules applicable to him or her. Provided that before taking such disciplinary action, reasonable opportunity of being heard shall be afforded to such teacher. The teacher grievances shall also be redressed in such manner as may be prescribed.”

**Justice Verma Commission (JVC) Report (2012).** A Commission was appointed by the Honourable Supreme Court to examine the entire issue which have bearing on improving the quality of teacher education as well as improving the regulatory functions of the National Council for Teacher Education (NCTE). The Chairman of this Commission was Honourable
Justice J. S. Verma, former Chief Justice of India. Justice Verma Commission (JVC) has attempted a close scrutiny of the existing provisions and the quality of teacher education to facilitate identification of the deficiencies therein, and then to enable it to make recommendations which can rectify the defects and provide the level of teacher education necessary to produce quality teachers. The JVC Report has three volumes: Volume I contain the main report with the final conclusions and recommendations which is divided into 7 chapters. Volume II deals with the discussion and material related to the 291 recognised teacher training institutions in Western Region of Maharashtra. Volume III contains all the Annexure. Terms of Reference of JVC Report Whether in the context of the provisions of the Right of Children to Free and Compulsory Education Act, 2009 the Regulations on Recognition Norms and Procedure that lay down the norms and procedure for various teacher education courses which are adopted by NCTE are adequate or need review. The Commission of the JVC report pointed out the following findings:

1. “Classroom practice is closely tied to the manner in which teachers learn to engage with teaching as a practical and social activity.
2. The institutions of teacher education operate as a system of well-established conventions that structure social interaction, reproducing shared habits of thought through the conventions and rituals of teacher preparation.
3. The bulk of secondary teacher education institutes offering programmes leading to the B. Ed. degree are outside university campus.
4. Elementary teacher education institutes leading to the D. Ed. degree are not linked to the Universities.
5. Teacher education institutes function as closed spaces with the sole mandate of training teachers.
6. Most teacher education programmes (B. Ed. and D. Ed.) do not adequately engage with subject knowledge.”

On the Quality of Curriculum Content the Commission examined the curriculum and found the following:

7. “Initial teacher preparation, both at the elementary and secondary levels, is facing a number of problems. Some of them are common while others are specific to a stage of education.

8. The teacher education curriculum either in the D.Ed. or the B.Ed. programmes does not effectively engage student-teachers with subject knowledge. It focuses only on generic methods of school subjects. Any new developments in specific disciplines that make up school subjects do not receive the due attention.

9. Current programmes fail to integrate the knowledge the knowledge about learners and the knowledge of the subject with knowledge about the socio-cultural context and philosophical basis of education and learning. Teaching is practiced as a mechanical delivery of a given a number of lessons, rather than reflective practice.”

About the mode of teacher preparation, the commission viewed the following:

10. “Quality of training through distance mode was poor.

11. Current teacher education institutes are isolated from universities and the system of higher education.

12. Initial training of teacher education suffers from isolation, low profile and poor visibility in view of it being a non-degree program.

13. There is an urgent need to up-grade pre-service elementary teacher education by enhancing the duration of training; making it equivalent to an integrated degree programme and locating the management and control of elementary teacher education with universities.”
Recommendations made by the JVC Commission for the overall improvement of teacher education are:

14. “The Commission recommends the Government should increase its investment for establishing teacher education institutions and increase the institutional capacity of teacher preparation, especially in deficit states.

15. Government may explore the possibility of instituting a transparent procedure of pre-entry testing of candidates to the pre-service teacher education programmes, keeping in view the variation in local conditions.

16. Teacher education should be a part of the higher education system. The duration of program of teacher education needs to be enhanced, in keeping with the recommendations of the Education Commission (1966) the implementation of which is long overdue.

17. It is desirable that new teacher education institutions are located in multi- and interdisciplinary academic environment.

18. Existing teacher education institutions may be encouraged to take necessary steps towards attaining academic parity with the new institutions.

19. Current teacher education program may be redesigned keeping in view the recommendations in the National Curriculum Framework for Teacher Education (NCTE, 2009) and other relevant material.

20. In keeping with the recommendations of the Education Commission (1966) every pre-service teacher education institution may have dedicated school attached to it as a laboratory where student teachers get opportunities to experiment with new ideas and hone their capacities and skills to become reflective practitioners.
21. There is a need to establish a national level academic body for continual reflections and analysis of teacher education programmes, their norms and standards, development of reading material and faculty development of teacher educators.

22. As a matter of policy, the first professional degree/diploma in teacher education should be offered only in face-to-face mode.

23. Distance learning programmes and the use of blended learning material may be developed and used for continuing professional development of school teachers and teacher educators.

24. The institutional capacity should be increased for preparation of teacher educators.

25. There is need to make Masters in Education program of two years’ duration with the provision to branch out for specialization in curriculum and pedagogic studies, foundation studies, management, policy and finance, and other areas of emerging concerns in education.

26. The NCTE would need to develop broad-based norms for qualification of teacher educators to enable induction of persons with post-graduation degrees in education science, social science, languages and mathematics, along with a professional degree in teacher education or a research degree in education, as teacher educators.

27. The idea of creating opportunities for teaching practitioners to teach in teacher education institutions, as visiting faculty, may be explored. Similarly, teacher educators could be considered as visiting faculty in schools.

28. Faculty development programmes for teacher educators should be institutionalized.

29. There is need for enhanced investment in promotion of research in education in general, and in teacher education in particular in the
universities; creation of an Inter University Centre in Teacher Education could play a significant role, in this regard.”

**National Council for Teacher Education (NCTE) Regulations 2014.** The regulations relating to teacher education programmes for preparing norms and standards and procedures for recognition of institutions, commencement of new programmes and addition to sanctioned intake in the existing programmes include the following:

1. “Recognition for commencement of new teacher education programmes which shall be offered in composite institutions.

2. Permission for introduction of new programmes in existing teacher education institutions duly recognized by the Council.

3. Permission for additional intake in the existing teacher education programmes duly recognized by the Council.

4. Permission for closure or discontinuation of recognized teacher education programmes, or institutions as the case may be: Provided that for teacher education programmes offered through open and distance learning, the respective norms and standards for each such learning program shall be applicable.”

**Teacher Education in Five Year Plans**

In view of the comparatively low percentage of trained teachers in India, the first five-year plan (1951-1956) proposed launch of enough training institutions for primary school teachers. As a result, it was estimated that the
number of training schools and colleges increased. Percentage of untrained teachers was 46.4 in secondary schools. For the purpose of educational reorganization, most of the trained teachers also required considerable retraining. Expansion of training facilities, therefore, deserved very high priority. The scales of pay and conditions of service of teachers were generally very unsatisfactory to constitute a major cause of the low standards of teaching. It was estimated that the number of training schools and training colleges from 782 and 53 in 1950-51 to 915 and 102 respectively by the end of 1955-56. The enrolment in training schools increased from 70,063 in 1950-51 to 91,530 in 1955-56. As a result of the expansion of training facilities, the percentage of trained primary and secondary teachers increased from 58.8% and 53.6% respectively in 1950-51 to 63.1 and 55.4% in 1954-55. Before the first plan, 59% of the teachers in primary schools and 54% in secondary schools were trained. As an effect, by the end of first five-year plan these percentage rose to 64% and 56% respectively.

Rupees 17 crores were allocated for improving training facilities for teachers by end of the second five-year plan started from 1956 to 1961. Besides expanding the existing institutions, it was proposed to establish 231 training schools and 30 training colleges. It was expected that the proportion of trained teachers would increase to 79 and 68 percent in primary schools and secondary schools respectively by the end of the plan. The number of training schools were to increase from 449 to 729. A national institute of basic education was also established as a research centre. Thus, the number of teachers had risen from 7.3 lakhs before the first plan to 10.24 lakhs in 1955-56 and was expected to further increase to 13.56 lakhs in 1960-61. The central institute of English was established in 1958 in Hyderabad.

In the third five-year plan from 1961 to 1966 number of training colleges were estimated to increase up to 312. But the number of colleges rose
from 53 in 1950-51 to 236 in 1960-61. The existing training colleges were also to be strengthened and expanded to increase the supply of trained teachers. Special emphasis in this matter was to be given to pre-service training of teachers in science and social studies. Introduction of new techniques of evaluation, and provision for a variety of special subjects such as guidance and audio visual education and organisation of research also given more importance. Efforts to improve the social and economic status of teachers were continuing to be made during the third plan period. Efforts were made for the improvement of enrolments and service conditions of teachers during the period 1961-66. Almost all the states revised the pay scale of teachers. To provide in-service training facilities for elementary school teachers, 54 extension centres were set up during the second plan at selected training colleges. In every state, State Council of Educational Research and Training was formed during 1960s. One of the major functions of these councils is the control and supervision of elementary teacher training programmes

The Planning Commission in the Fourth Five Year Plan (1969-74) laid emphasis on Teacher Education for improving its quality, training more women teachers and teachers from tribal communities, training science and mathematics teachers for the middle classes and organizing in-services training. For the training of teachers already in service, it suggested correspondence courses. It advocated greater co-ordination between the NCERT and the SIEs for qualitative improvement in school education. It also suggested training Programmes for teacher educators. 73% or 0.381 million out of 0.525 million teachers at the secondary stage, were trained at 1968-69. At this stage, the training facilities available were considered adequate and could be easily expanded according to the need. The correspondence courses organized by the Central Institute of Education, Delhi and the four Regional
Colleges of Education facilitated the process of speeding up the training of untrained teachers. The main programmes during the Fourth Plan addressed their concerns to improve standards of teacher education at this level and to organize a large number of in-service education programmes, especially for mathematics and science teachers. Funds were placed at the disposal of the University Grants Commission to improve physical facilities of the departments of education in universities and secondary training colleges and to upgrade the professional competence of the teacher educators working in them. These programmes were organized with those of the National Council of Educational Research and Training, State Institutes of Science Education and State Institutes of Education.

It may be noted that the Fifth Five Year Plan (1974-78) outlays for education during the first three years of the plan had been somewhat modest because of the economic constraints but the growth in the total governmental expenditure on education, both plan and non-plan, must be considered substantial. Provision could also be made for curricular re-structuring, work experience and strengthening of educational institutions for teachers in addition to the expansion of educational facilities. Three components namely, provision of books and stationery to students at cheaper rates, supply of essential commodities to hostel students at subsidized prices and expansion of apprenticeship training programmes were undertaken under the 20-Point Socio-Economic Programmes. The capacity of the textbook printing presses was increased. Book banks continued to be launched in educational institutions and the coverage of apprenticeship scheme was expanded.

Sixth Five Year Plan was proposed to emphasize and to allocate adequate funds for several programmes of qualitative improvement such as introduction of socially useful productive work, curricular reform so as to link education to the environment and to make it relevant and interesting to
children, relating school vacations to climate and agricultural conditions, provision of equipment and provision of cheap but effectively useful buildings constructed, as far as possible, out of materials by local communities, improvement in the quality of school books, adoption of dynamic methods of teaching and evaluation, emphasis on better teaching of the basic subjects of language, arithmetic and science, creation of scientific awareness and inculcating scientific attitude, better pre-service and in-service education of teachers and improvement of supervision.

The major concern during the Seventh Five Year Plan period was that the training of teachers should comprise, apart from pedagogy, the use of mass media, science and technology, planning and curriculum design for local environment-based courses, mobilization and use of community resources and other relevant subjects. A special emphasis was required to be laid on teaching methods and other measures particularly needed for first generation learners and for reducing the number of drop-outs. Teacher training institutions were to be developed and strengthened accordingly. Facilities were contemplated to be created for the training of additional teachers required during the Seventh Plan period. There was as yet no adequate infrastructure in the country for the training of teachers in non-formal and early childhood education. Training of such teachers was thought to be organized by suitably strengthening the existing teacher training centres. Considering the number involved (over 2.5 million teachers), institutionalized in-service education of teachers was difficult to manage not only due to the huge costs involved but also due to lack of facilities for training. It was, therefore, necessary to think of a variety of training arrangements. Among other, these included:

1. In-service education by utilizing the mass media, as was done during SITE;
2. Adoption of schools of lower levels of education by institutions of higher levels for upgrading of teacher competencies;

3. Dispatch of teacher guidance notes by training schools;

4. Publication of bulletins informing teachers of new developments; and

5. Use of correspondence course materials supported by occasional contact.

It was suggested that one of the essential conditions for continuous improvement in the quality of secondary education is an effective system of in-service training of teachers. The existing facilities had to be assessed, additional requirements indentured and steps taken to meet them. The opportunity provided by the new communication technology was to be explored for this purpose. Here again, special attention was to be paid to the development of requisite software. Training of personnel required for effective use of modern communication technology and computers in education was envisaged to be given very high priority.

During Eighth Five Year Plan period, an important development took place. It was articulated that statutory status be accorded to the National Council for Teacher Education (NCTE) to lay down and maintain standards in institutions and courses of secondary teacher education; the schemes of, STEIs and IASEs be continued and their coverage expanded with a view to strengthening institutional infrastructure and programmes of teacher education and suitable measure for selection and professional development of staff in IASEs be undertaken. It was projected that a large number of teachers were to be covered through in service programmes, both institutional and distance education, and reputed professional organizations were to be encouraged to conduct in-service and refresher courses for teachers. Open universities at the national and State level were to be encouraged to introduce induction teacher training courses to supplement efforts of the existing
training institutions. The bulk of seats in teachers” training colleges were to be reserved for rural women.

Ninth Five Year Plan It was observed that number of teachers working in elementary and secondary schools recorded a six-fold increase from 7.5 lakhs in 1951 to 45.28 lakhs in 1996, with female teachers constituting 34.3 percent of the total number in 1996. The budgeted expenditure on education had recorded an increase from Rs. 644.6 crores in 1951-52 to Rs. 36, 529.29 crores in 1996-97. It was set forth that during the plan period the draft curriculum framework developed by the National Council for Teacher Education (NCTE) be finalized and made the basis for curriculum change in institutions for teacher education. The assumption was that it would help improve the quality of teacher education programmes. The process of strengthening Teacher Education Programmes be given further impetus by upgrading the physical and academic infrastructures of:

1. National Council for Teacher Education (NCTE)
2. Departments of Education in Universities;
3. State Councils of Education Research and Training
4. (SCERTs);
5. Colleges of Teacher Education (CTEs);
6. Institutes of Advanced Study in Education (IASEs);

To supplement the efforts to improve school effectiveness, an institutional mechanism was to be put in place to provide on-the-spot counselling and guidance to teachers located in remote areas. This was thought to be in the form of mobile teams of resource persons (MTRPs).
Logistic arrangements were to be location specific, based upon felt needs and environment.

The Tenth Five Year Plan (2002-07) besides addressing the issue of quality, placed an exclusive emphasis on teacher education. For professional development of teachers, the focus given has been on

Enhancing pre-service training facilities in selected districts where the present capacity is not adequate;

Extending the provision of pre-primary teacher training by strengthening existing institutions that provide, or are willing to provide, pre-service education for the pre-primary stage;

Development of courses for in-service education of teachers that may carry credits and linking these to promotions and benefits.

Speedy completion of CTE/IASE projects sanctioned but not completed up to the end of the IX Plan period;

Making CTEs, IASEs sanctioned up to the Ninth Plan period optimally functional and operational;

Sanction and implementation of fresh CTE/IASE projects to the extent necessary.

In the process of formulation of 11th Five Year Plan, a number of working groups, Steering Committees and Task Forces were set up for going into details of policies, plans and programmes of different sectors and to make recommendations on various policy matters. For teacher education, the relevant Working Group Report has recommended that the 11th Plan lays stress on:
Working out an integrated perspective in respect of teacher education system that links Early Childhood Care and Education, Elementary Education, Secondary and Higher Education with teacher education at every level;

Teacher education has to be inter-disciplinary in terms of institutional structures;

Teacher education has to enable teachers to reconstruct the view of knowledge in various disciplines along with developing a critical understanding of curriculum and pedagogy;

Teacher education has to emphasize the social, cultural, economic and political content of children; Continuous professional development of teachers; Filling systemic gaps.

Managing Agencies of Teacher Education

To manage teacher education there are many agencies are established. The managing agencies of teacher education can be broadly classified into

Central level agencies of teacher education

State level agencies of teacher education

Central level agencies of teacher education

University grants commission (UGC). Established on 28th December, 1953, at New Delhi. UGC was given autonomy by govt. of India in 1956. It provides financial assistance to universities and colleges to meet their requirement and extends the financial aid for the development of Universities and maintenance. UGC provides a guide-line to Centre and State Govt. for giving grant to a University. It provides the grants for five years to
establish as new University in the state and grants for five years to start new department or any academic programme in the University but now state concurrence is essential. It encourages higher level research work and teaching activities by providing financial assistance. It provides the fellowship for teachers and project work for University and college teachers. To upgrade the standard of education Teacher-education teacher education committees were formed consisting of seven members for two years’ duration. UGC is giving substantial grants to University teachers for conducting their own researches. In 1953-54, Ministry of Education initiated a scheme providing grants to teachers, colleges and departments of education in the Universities in order to enable them to carry out research on educational problems selected by them and approved by the central ministry. The main purpose of the scheme is to provide facilities for research which, in many instances, has been held up owing to dearth of funds. It is to be carried on by the staff of the training colleges assisted by some research fellows assigned to them and some financial facilities. Equipment is provided to facilitate the completion of the projects.

**Centre for Advanced Studies (CASE).** UGC set up CASE in various knowledge streams for the quality improvement of teaching and research in India. Baroda is selected as the CASE for teacher education and research. The programmes of CASE were prepared in collaboration with research workers abroad. One of the main function of CASE is to provide scholarships and financial assistance for teachers and scholars for encouraging cooperative research. It also takes care of publishing of booklets and journals for providing valuable information to the teacher educators, administrators and planners.

**National Institute of Educational Planning and Administration:**

(NUEPA/ NIEPA). NUEPA is the highest organisation of educational
planning and administration in India. It caters training of educational planning and administration as the in-service program to develop abilities and competencies in the educational management. These trainings are provided at state level and regional level to improve the administration capabilities at their level. This is done by co-ordinating and integrating educational studies and researches under the area of educational planning and administration. NUEPA also encourages the teachers to solve the problems of educational planning and administration by organizing seminars and workshops. And Arranging extension programs for new developments and innovations in the area of planning and administration. NUEPA Establishing contact with other countries to understand the developments and innovations of the developed countries. And makes Review of educational planning and administration of other countries- used to develop our educational system and solve educational problems. It provides Orientation programs for educational administrators-provide awareness of new developments in this area.

National Council of Teacher Education (NCTE). Kothari commission Report (1964-66) criticized Teacher Education Programme being conventional, rigid and away from reality. Therefore, it expressed the need of establishing National council of Teacher Education in order to improve the standard of Teacher Education. In September 1972, Central Advisory Board in Education accepted the said proposal which was supported by fifth National plan. Thereafter by law, Indian Education Ministry established NCTE on 21st May 1973. NCTE has got independent constitutional status since 1993. The major objective of NCTE is to work especially towards planned and coordinated development of teacher-education. And to improve the standard and functioning of teacher educators.

NCTE functions through the following standing committees: such as Pre–Primary, primary teacher education committee, Secondary college
teacher education committee, Special education teacher education committee and in-service teacher education committee. Activities of NCTE are focussed on: Research Extension services, development programmes, Training and Evaluations. NCTE Coordinating and monitoring teacher education and its development in the country. NCTE prepares a guideline on with regard to minimum qualifications for the candidates to be employed as teacher educators at different levels and specified requirements for starting new courses and programmes under teacher education and for general teacher education programme. It advises the government on ensuring adequate standards in teacher education. NCTE give approval to teacher education institutions and lays down norms for maintaining standards of teachers’ education. NCTE Promotes innovations and research studies and organize them periodically or annually.

National council of educational research and training (NCERT).
National council of educational research and training was established in 1961 to incorporate the research in in-service education. It started about 50 extension centres in elementary teacher training institutions, all over the country for elementary teachers. During sixties four regional colleges of education were started at Ajmer, Bhopal, Bhubaneswar, and Mysore for improving the quality of teacher education by starting a four-year integrated course after higher secondary, the university of Kurukshetra introduced a four-year integrated course, a centre for advanced study in education was established in M.S university, Baroda and correspondence courses were started in 1964. The number of teacher training schools increased to 1300 in 1965-66; the number of training colleges increased to 269.enrolment in teacher training schools rose about 16 lakh and teacher training colleges to 30 thousand in the year 1965-66. The number of trained teachers increased to 67% at the primary stage, 72% at middle stage and 70% in high and higher secondary stages in the same years. NCERT organizes or conducts various
programmes with respect to Research, Development, Training, Extension-servicess, publishing study material, and evaluation. It aims at qualitative improvement of school education. It aims at qualitative improvement of school education rather than quantitative expansion. Following are the functions of NCERT:

1. To launch, organize and strengthen research works in various aspects of education.

2. To arrange for pre-service and in-service training at the higher level.

3. To publish necessary textbooks, journals and other literature for achieving the objectives.

4. To organize extension centres in training institutes with the cooperation of state governments and extend facilities pertaining to new methods and technologies among them.

5. To establish a National Institute of Education and manage for the development of research and higher training for educational administrators and teachers.

6. To provide guidance and counselling services on a large scale.

**State level agencies of teacher education**

Every state in India formed state level institutions, councils and associations to enhance quality of education and educational institutions, to update and upgrade educational methodology and to promote the educational innovations by conducting various educational researches.

**State council of educational research and training (SCERT).** The SCERT is visualized as lead academic institutions at State level providing support to other agencies like DIETs, CTEs, IASEs and also engaged in
educational research and training. As NCERT function at national level SCERT works at state level by providing guidance to state governments on policy issues. To improve the quality of school education and teacher education, SCERT undertakes various activities. Under Section 29(1) of the RTE Act, SCERT in several states have been designated as academic to lay down the curriculum and evaluation procedure to be followed by the schools at the elementary level. SCERT have various functions like conduct in-service training programs, evolve short-term and long-term teacher education programs on specific themes of specialization for secondary and senior secondary teachers, administrators and teacher educators, develop and conduct training for educational administrators, head teachers in planning and management and conduct training of the newly recruit teacher educators/faculty of the DIETs/DRCs/BITE.

**District institute of education and training (DIETS).** At district level, DIETs are nodal institutions for improving the quality of elementary education. They are assigned to transact in-service and pre-service training programs for elementary school teachers. The DIETs need to be strengthened in all respects in terms of organisational structure, physical infrastructure, academic programmes, human resources, and financial support. Under the revised Scheme, the responsibility of DIETs grows multi fold especially in the context of RTE Act, RMSA and NCF and not limited to teacher training but as an institution to manage quality aspects in schools, professional development of teachers, intra-district academic coordination in the district, academic assessment monitoring, research and action research, ICT interventions, innovative practices and academic planning in the district.

The emergence of DIETs caused for a new culture in the teacher training scenario that resulted in the changes in the field of teaching learning process of primary sector. As per the DIET guide line the mission of DIETs is
“to provide academic and resource support at the grass root level for the success of the various strategies and programmes being undertaken in the areas of elementary and adult education with special reference to Universalisation of Elementary Education and Adult Education” (1989 Government of India). As a sponsored scheme, the establishment of DIETs envisioned for reaching changes in the field of education particularly in the elementary sector. The funds that flow from the Government of India to the state through the Directorate of Education is as per the plan proposals prepared at the District level and consolidated by the Directorate. The funds are proposed for infrastructural improvement, academic renewal and curriculum restructuring. As an institution, each DIET is assigned with several activities for educational renewal including teacher training, curriculum and material development, evaluation devices, research activities, technological innovations and adult education programme.

As the abbreviation puts– DIET is District Institute of Education and Training. This further indicates that it is an institution for research and training. Research programmes are confined to class room processes, pedagogic improvement, Training and in the areas of academic capacity building of teachers, heads of schools and parents. The major focus area of research is in action research to resolve the problems of reflective practitioner. The Planning and Management of DIET which is a thrust area for educational development, focus on educational planning and administration. Better planning yields better results in education. Education as a long-term investment requires plan in real sense and thoughts of diversity. The funds are being allotted for specific activities proposed by the seven faculties in DIETs. The ultimate attention in all the programme of the different faculties is the learners and their educational rights. The technology that includes in the training programmes will lead to an enlightened society of learners who need
to be accountable to the fast-tracking society. This means that the entire activities enunciated by DIETs are meant for Human Resource Development.

**Block institute of teacher education (BITE).** To guarantee the preparation of elementary school teachers from amongst SC/ST and Minorities, the Government of India at National level has identified 196 districts in the country which have high concentration these communities. All such districts are eligible to set-up Block Institute of Teacher Education (BITE) to provide elementary teacher education program (D.Ed.) which would ensure access to good quality teacher education facilities for rural and remote areas and facilitate the entry of talented persons, particularly from SC/ST and minority concentration areas. State and district authorities have to do a detailing on the location, earmarking land and other detailing for establishment of the BITE. Before finalizing BITE, explore possibilities for approaching well performing private teacher education institutions or DIET for admitting eligible persons from the SC/ST/Minority communities to the teacher education course. The Government would meet the cost of tuition and other fees in respect of persons so admitted. An existing elementary education institution could be upgraded into a BITE. BITEs should be established in a block other than the one where DIET is located, having highest concentration of the community.

**Institute of advanced studies in education (IASE).** The Institutes of Advance Studies in Education (IASE) work in the field of pre-service and in-service, secondary teacher education. They also conduct M.Ed., M.Phil. and Ph.D. programs in the field of education. IASE may also conduct and pilot new teacher education programs, such as the 4-year integrated B.El.Ed. course. IASEs should evolve as Regional Resource centre as per its renewed role envisioned by the Teacher education scheme.
IASE to perform following functions – pre-service Secondary teacher education programs (B.Ed.), Program for preparing teacher educators (M.Ed.), In-service training of teacher educators (mainly DIET faculty), Short-term courses for teacher educators of CTEs, develop resource material for teachers and teacher educators, Conduct advanced level fundamental and applied research and experimentation in education, M.Phil. and Ph.D. (subject to availability of necessary faculty and facilities). IASE would also set-up units/centres to do Research and Material development in Curriculum Studies, Pedagogic Studies, Assessment and Evaluation. IASE would also act as Regional Resource Centre for various activities like – Development of curriculum and learning material, Educational Planning and administration and Development of Modules for training of educational administrators.

**University departments of education (UDE).** Department of Education (DOE) provide training for educational administrators and curriculum specialists to improve evaluation procedures as well examination system. University DOE organize the M.Ed., B.Ed., and M.Phil. classes as well as research work for Ph.D. and D.Litt. degree in education. In 1917, first education department was started at Calcutta University. At present, there are departments of education in all the Indian Universities for M.Ed. and Ph.D. Degrees. The Functions of UDE are to Develop the post graduate studies and research work and Organize training for school teachers. It Provide solid programmes for teacher education and developing research work. The major functions are Starting and organize some programmes for post graduate teachers which are not organized at other centres. Developing language laboratory, preparing instructional material and use new innovations and practices in teacher education are the major functions performed by UDE. It Encouraging the interdisciplinary courses and interdisciplinary research studies so that the requirements of other departments can be fulfilled. By
Organize extension lectures and programmes, it encourages the teachers and research workers to contribute in the discipline of education.

**Centre for continuing education for teachers (CCET).** The NCERT has established an extension service department for establishing centres of continuing education for in-service teachers. Such centres are needed for primary and secondary in-service teachers to make them up-to-date for the latest knowledge of the content and teaching techniques. CCET organises programmes like seminars and workshops during summer vacations and holidays for in-service teachers. in view of the local needs of the schools and the student’s programmes should be organised at regional level.

**Colleges of teacher education.** Following the National Policy on Education (NPE) 1986 and the POA (1992) Planning the Colleges of teacher Education (CTEs) were established. CTEs works in the field of in-service and pre-service secondary teacher education. They also have the responsibility of carrying out research, material development and provide extension and support to schools and other bodies. The role of CTEs has become extremely important in the context of RMSA, in not only expanding the quantity and quality of secondary school teachers but also reinvent itself to proactively integrate with the larger state teacher education system. CTEs would continue to conduct pre-service and in-service training programs for secondary school teachers. CTEs would conduct training need analysis and baseline surveys for organizing training programs including teacher handbooks and training modules. CTEs would conduct impact studies to study effect of training in classrooms processes and learning outcomes. This would have to be done through substantial school visits and classroom observations. CTEs would also prepare implementation guidelines for plan activities including training and projects Colleges of education organize the teachers training to both in service and preservice teacher and prepare effective teachers.
1. Gifted and talented students are identified and trained by developing teaching skills and competencies.

2. Modification and improvement in teaching methodology and techniques through new practices and innovations.

3. Activities are managed for developing the sense of cooperation among teachers.

**Level Specific Teacher Education Programmes/Institutions**

Teacher education is level specific i.e. according to the needs of pre-primary, primary, secondary, higher education and vocational teachers. Although basic philosophy and methodology of teacher education are the same more or less, there are specific methods and strategies for classroom transaction and degree of emphasis and thrusts on different aspects and dimensions. Further due to historical and geographical reasons, the teacher education programmes widely vary in content and process from one state to another, even from one region to another. That is why, there is no uniformity in the country in the teacher education programmes and institutions. These are, however discussed as follows, mainly under 5 heads pre-primary, primary, secondary, higher education or tertiary and vocational teacher education.

**Pre-primary teacher education**

Prior to independence there was no formal training programmes for pre-primary school teachers. After 1947 however importance of primary education was realised and particularly emphasise was given on the teachers training for educating the young children. The education commission 1964-66 suggested upgradation and strengthening of teacher education programmes and institutions. Especially pre-service training of preschool or pre-primary
school teachers was given importance. The qualification and salaries of the staff should be comparable of the training colleges. The course should be under the purview of universities. Previously, high school passed persons were trained for teaching in pre-primary schools. The government of India established the Indian infant education committee and since 1954 this committee has been working inter alia in the area of pre-primary school teachers training. NPE/POA, 1986, integrated child development scheme(ICDS) is at present the biggest programme of early childhood development with 2.90 lakh Anganwadis serving nearly 140 lakh children and about 27 lakh mothers. 91.5% of ICDS projects located in rural and tribal areas and 8.5% in urban areas. Most of these Anganwadis provide early childhood or preschool education as an integral part of their child development programmes. there are various models of early childhood education in which hundreds of teachers must be working without any kind of training worth mentioning. as the ECCE programmes are bound to expand considerably over the next two decades, corresponding training facilities would be available for all levels of functionaries. Following would be some of the important parameters for meeting the training requirements

1. Initiating a two-year vocational course in ECCE at +2 level with the objective of creating basic skills which can later be adopted through job training for specific situations

2. Strengthening the educational context of ICDS functionaries training by providing appropriate training inputs, resources, materials, etc. and extending it, where possible to include a competent day care

3. Review of the existing training program of ECCE

4. Working out flexible models of day care training at field level
5. Taking steps for setting up a higher course in ECCE for senior level functionaries of ICD’s, trainers in the various training institutions and supervisory personnel

6. Creating a system of accreditation of training institutions dealing with ECCE

The content of the preschool program should provide inputs for a holistic development of child faculties. Child centred methods, play way activities, development of language skills creative actions and psychomotor development should be emphasized in the training program of preschool teachers.

**Primary teacher education**

It is meant for imparking pre-service training to prospective or in-service teachers of primary schools. The basic qualifications required for admission in to the course is higher secondary examination pass and the duration is also for two years.

**Secondary teacher education**

For a long time, teachers in high school were trained in training colleges where diploma in education(D.Ed.) was awarded by them. Subsequently the D.Ed. degree was substituted by B.Ed. or bachelor in education course. The basic qualification is required to be a graduation in arts, science, Humanities and commerce. Theses training courses are made available in the training colleges as suggested by NCERT and NAAC, the course of studies for B.Ed. degree has been reoriented and upgraded for in order to cater to the emerging needs of school and society.
Higher education

Post graduate teacher trainee, viz., M.Ed. course is provided in the post graduate training colleges and the duration is two years. Subsequently M.A in Education and M.Phil. course have been provided in the general colleges or universities. M.Ed. Course is given practical orientation, while MA and M.Phil. courses are theory oriented. Students are required to conduct research studies and report the finding in the form of dissertations or thesis for examination. Now a good number of teachers both from the schools and colleges are undertaking research work privately for their Ph.D. Degree in education.

Vocational teachers training

Specific training courses are organised for training teachers in technical subjects like Art and Craft, Physical education, SUPW, and so on. Colleges of Arts, Physical education etc. impart training for the development of skills and theoretical knowledge. Degrees are given to the teachers/instructors in physical education and Art Education respectively. Besides there are specific training institutions like Hindi teachers training college and English language teaching institute for teachers in Hindi and English respectively.

Teacher Education in Kerala

The state of Kerala came into being on first November 1956, by merging the formal princely states of Travancore and cochin and the province of the Malabar which was under direct British rule as part of the then Madras presidency. While there was uniformity in the systems of education in Travancore and cochin, the situation in Malabar was far from satisfactory. It is in the context that one has to look into the history of teacher education in the state of Kerala.
Inception of school education

For a long time in the past, education in Kerala was imparted in institutions which were known by the name ‘Kalari’. These were single teacher elementary schools, of which there are at least one in Kara or subdivision of a village, established and run quite often by ‘Asan’ or the Teacher himself. Physical education and instruction in the three ‘R’ constituted the curriculum. No fee was usually collected and so the teacher and the institution were maintained by voluntary contributions of the local people. Students who wished to pursue higher education had to attach themselves to gurus or pundits of repute, who were in plenty in those days.

The first school in the region, as far as collected information reveals, was started by Portuguese traders. Later missionaries from various parts reached this land started schools in which native children were also admitted. The state began to take direct interest in education of the people only from the beginning of the nineteenth century. It was in 1820 the Rani Gauri Parvathy Bai, the ruler of Travancore issued her celebrated rescript declaring the resolve of the throne to defray entire expense of the education on its people from the state ex-chequer. The descript prescribed that each school to have two teachers who were to be paid 50 Fnamas (Rs. 7) each per mensem, and that tahsildar and taluk accountants were to visit school and submit reports to the huzoor once in a fortnight.

The school’s set-up for elementary education came to be known as vernacular schools. In cochin vernacular were established by a proclamation of 1818. Even before the implementation of the recommendation of Macaulay’s minutes, there was great enthusiasm in learning English in the region due to interest shown by missionaries. These resulted in simultaneous growth of English education and vernacular educations. In Travancore by
1813 there were six English schools organised by Prussian missionaries. Trivandrum had an English school named Christian David school as early in 1821. The state entered the field when a school started by Mr. Roberts. Later it was taken over and converted by Government as Rajah’s free school of Travancore in 1836. The first English school in cochin was opened by a missionary at Mattanchery. But it has to closed down in 1821. Two years later two English schools were opened in Trichur and Thripunithara and later in 1845 at Ernakulum. In Malabar, which was a district of Madras presidency the Brennen High School was started in 1862. Later schools were founded in Palakkad and Calicut. By 1878-79 there were four high schools in Malabar with an enrolment of 313 students.

**Beginning of teacher education**

Training in teachers this part of the country seems to have first received attention in the Malabar area as part of the Madras presidency, Malabar took advantage of normal schools established in Madras in 1856, and of the provisions made later, for collegiate training in teaching. It is perhaps well known that Madras was the first state to institute a university degree for teaching (1885). It may also be recalled that, what later came to be known throughout the western world as Lancastrian and monitorial system, was really the Madras system evolved by Dr. Andrew Bell in the Madras Male Asylum. Naturally simultaneous with the development of English education, provision for training of teachers for elementary education for vernacular schools was also made in Malabar and the first normal school in Kerala was founded Kannur.

In the absence of normal schools in the state, the Travancore government agreed in 1861-62 to contribute to maintenance of this school so that it can secure trained teachers. In 1866-67 a normal school was opened in Trivandrum, which had to be closed down five years later. Finally, in 1885, a
normal school for training of vernacular teachers, and in 1894, an English
normal school were established in Trivandrum and the contribution paid to
the cannore school was discontinued. For the training of teachers, Malabar
had three government training school, one aided training school, one training
school for mappila teachers and one for mistress at the end of first decade of
the 20th century.

Cochin too had no normal school of its own for some time, and it
depended entirely on the facilities available in madras for the training of its
teachers. In 1876, taking advantage of few scholarships offered by the madras
normal school, cochin send a graduate and 3 matriculates for training there.
This was continued till 1890, when vernacular normal school was opened in
Trichur. The subjects included in the course of studies as listed were teaching
power, method and management, hygiene and Malayalam. In 1908, this
normal school was improved and, to attract women trainees, scholarships
were offered and next year training classes were started for women in the
Trichur girls high school. In 1916, the Trichur normal school was completely
reorganised “with a view to meet modern requirements”, provisions having
been made for training of both men and women in lower elementary, higher
elementary, and secondary stages; and under a “scheme of cooperation and
joint action with the Travancore government” graduate teachers of cochin
were sent for training to the Trivandrum training college (1911) which had
just been established.

The English normal school established in Trivandrum in 1894, had
three classes each meant for the training of teachers who had passed the lower
secondary, matriculation, or F.A. examination. A separate normal school for
women teachers was opened in 1866, and in 1904, an English training section
was added to this school, which till then, had been training only vernacular
teacher. By 1903 1904 there were two government training schools, five aided
training schools, and one unaided training schools, in Travancore, and they were training teachers for five different certificates - The high school and middle school certificates for English school teachers and the high school, middle school and primary school certificates for vernacular school teachers. The period of training was increased to two years in 1904. In the same year four special normal schools were opened for training of teachers belonging to backward communities. In 1917, ten more training schools were opened to train vernacular school and middle school teachers. The certificate given on the basis of written a practical examination after a two-year course, qualified them to teach in high school and middle school as well as in higher and lower grade vernacular schools. Arrangements had been made to get graduate teachers trained in Saidpet, Madras from the year 1895.

The number of English schools in Malabar was seven in 1882-83 with the enrolment of 431. At the close of the 19th century, Travancore had 25 English schools, with an enrolment of over 9000 students, and Cochin, nine English schools, with an enrolment of over 700 students. Cochin had a total of 1289 schools, with an enrolment of 184639 in the year 1901-1902.

In Travancore, the administration report mention that in 1901-02, only 21.2 percent of government school teachers, 8.8 percent aided school teachers and 2.3 percent of teachers in unaided schools had professional training

**Teacher education till the formation of state**

At time of the opening of the Trivandrum training college, present college of teacher education, Travancore had 30 English schools with an enrolment about 1200 students. The Travancore grants in id code of 1088 M.E (1913 A.D) which provide for giving grants to private English schools, and Cochin grant in aid code of the same year, gave great impetus to the expansion of education, especially through private effort.
The Trivandrum training college was opened in June 1911, with both collegiate and secondary education departments. Admission were restricted to serving teachers of schools and the seats provided were limited to 24. In 1923, the strength in each department was raised to 50 with 10 seats in each department being reserved for women. The duration of graduate course was 8 months and, while the trainees from government schools were given their pay and allowances, those from private schools were allowed a stipend of Rs.50 per month. The duration of under graduate course was two years till 1923-24 and then, it was reduced to one year.

The first training college in cochin was started in 1945 with an enrolment of 53, of which 23 were women. It was wound up in 1949 at the time of integration of Travancore and cochin states into Travancore cochin, as it was felt that the older college in Trivandrum alone was sufficient to cater to the needs of the entire area. The new state had 17.6% of its total population in schools and had 91.5% of the population of the age group 6-11 in schools, both being the highest in India at that time. 22% of the population of the age group 11-17 was also in schools while all India percentage for this age group was only nine.

The number of high schools, which was 334 in 1948-49 rose to 515 in 1950-51 and to 614, in 1956-57, and the enrolment from 133149 in 1948-49 to 305003 in 1955-56. The total number of schools in the newly formed state was 4978 with an enrolment of 1467091, and this rose to 5990 and 1984282 respectively by 1955-56. According to the census of 1951, Travancore cochin had a literacy rate of 40.7% out of which 50.2% among males and 31.5% among females. This percentage was second only to Delhi.

The percentage of trained teachers was 55.7 in 1949-50 which increased to 62.6 in 1954-55. One special feature noticeable at this time was
that over one third of the high school teachers were women. In the percentage of women teachers, the state had foremost place in India.

The rapid expansion of education in the Travancore-cochin state necessitated the immediate provision of increased facilities for the training of teachers. The Trissur training college was, therefore, reopened in 1951-52. Private training colleges had to be permitted to cope with the situation and the first one was started in 1953-54, the second in 1954-55 and third in 1956-57. Enrolment in training colleges rose from 233 in 1948-49 to 576 in 1955-56: and of this, 257 were women. In the meantime, in Malabar, a government training college had opened at Calicut in 1950-51; enrolment in it, which was only 85, had to be increased to 100 in 1955-56. Thus, on the eve of the formation of Kerala state in November 1956, there were six training colleges in the area with an enrolment of 845, of which 335 were women. Training facilities for undergraduate teachers also recorded phenomenal increase in the Travancore cochin state the number of training schools having increased from 42 to 75 and the enrolment in them from 1129 to 3324 during the period 1947-58.

**Teacher education in the reorganised state**

The expansion of education in Kerala after the formation of the state is noteworthy. Kerala ha a total for 9523 schools including lower primary, upper primary and high schools in 1956-57. These numbers rose to 9572 in 1960-61 and to 1081 in 1965-66. The percentage of trained teachers in high schools was 56. This rose to 75 in 1960-61. Kerala ha a total of 79642 teachers in 1956-57, of which 85 percentages were trained. These figures were 107759 and 84 percent in 1960-61 and 121934 and 80 percent in 1965-66. The percentage of women teachers at primary level was 40.9, at the middle stage 40, n at the high school stage 60.5. these percentages were the highest in India at the high school stage. It was 16 percent higher than in the next highest
percentage and in numbers, over 4000 more than in the next highest state. A few significant facts emerge. There was a spurt in enrolment in the year 1960-61 and since 1964-65, women candidates outnumbered men in training colleges. During these years, there has been a great demand for admission in training colleges of the state, the average number of applicants per seat each year, from 1961-62 to 1965-66 was 7.1, 6.7, 3.7, 3.4 and 3.6 respectively. The number of graduates who entered training colleges in other states of India also known to be considerable during the first half of the period. The statistics prove, among other things, that increase in the number of colleges, an of seats therein since 1961, had been sufficient though not adequate to meet the demand to relieve pressure on admission.

A landmark in the history of teacher education in the state was the organisation of a post graduate department of education in the university of Kerala in 1956 moulding M.Ed. course. The department, which began with 10 students on its roll doubled the number of admissions in 1960, and added 10 more seats in 1964 because of the pressure from qualified applicants. The duration of the course is one year and over 8 areas of study have been provided for specialisation.

**NCTE Regulation for Elementary Teacher Education Programme**

NCTE regulations 2014 put forward following regulations for elementary teacher education programme in the country, “The Diploma in elementary teacher education is a two-year professional programme of teacher education. It aims to prepare teachers for the elementary stage of education, i.e., classes I to VIII. The aim of elementary education is to fulfil the basic learning needs of children in an inclusive school environment bridging social and gender gaps with the active participation of the community.”
Duration

The D.Ed. programme shall be a duration of two academic years. There shall be at least 200 working days each year exclusive of the period of examination and the admission. The minimum attendance of student teachers shall be 80% for all course work including practical and 90% for school internship. Basic unit shall be 50 students and two basic units are permitted.

Admission Procedure and eligibility

Candidates with at least 50% marks in higher secondary or its equivalent examination are eligible for admission. The reservation and relaxation of marks for SC/ST, OBC and other categories are permissible.

Curriculum

D.Ed. programme is designed to integrate the study of childhood, social context of education, subject knowledge, pedagogical knowledge, aims of education and communication skills. The programme shall comprise of compulsory and optional theory courses, compulsory practical courses, and comprehensive school internship. The theory courses shall comprise courses on perspective in education, curriculum and pedagogic courses, and there shall also be optional course in pedagogy.

The theory courses shall include perspectives of education in three broad rubrics namely child studies, contemporary study, educational study. The theory courses shall also include language proficiency and communication, relevant field based units of study including assignments and projects. The curriculum and pedagogy courses shall include courses in pedagogy for primary and upper primary curriculum areas. Pedagogy courses in language. Mathematics and environmental studies for the primary stage shall be compulsory: optional pedagogy courses in Social science education,
Language Education, Mathematics Education, and Science Education shall be offered teaching at upper primary stage.

Field Engagement courses shall be designed to give opportunities to acquire a repertoire of professional skills and capabilities in craft, fine arts, work and education, creative drama and theatre in education, self-development children’s physical and emotional health, school health and education.

School internship

The D.Ed. programme shall provide for sustained engagement with learners and the school, thereby creating a synergy with schools in the neighbourhood throughout the two years. Students shall be equipped to cater to needs of diverse learners in schools. A minimum of 20 weeks of internship in schools during the course of which 4 weeks would be dedicated to classroom observation etc.; during the first year; second year of school internship will be for minimum period of 16 weeks in the elementary classes, including primary and upper primary. The institution shall have easy access to sufficient number of recognised elementary schools for fieldwork and practice teaching related activities of student teachers. It is desirable that it has an attached primary school of its own.

Programme implementation

The institution will have to meet the following specific demands:

1. The school internships and other school contact programmes shall be synchronized with the academic calendar of the school.

2. Initiate discourse on education by periodically organizing seminars debate lectures and discussion groups for students and faculties.
3. Organize academic enrichment program including interaction with faculty from parent disciplines encourage faculty members to participate in academic pursuits and pursue research especially in elementary schools.

4. Adopt participatory teaching approach in the classroom to help students to develop reflective thinking.

5. The optional pedagogy course for upper primary school teaching shall be selected by the students.

6. There shall be mechanism and provisions for the institutions for addressing complaints of students and faculty.

Assessment

For each theory course, at least, 20% to 30% marks may be assigned for continues internal assessment and 70% to 80 % for examination conducted by the examining body and one fourth of the total marks shall be allocated to evaluating the students’ performance during the 16 weeks of school internship. the weightage for internal and external assessment shall be fixed by the affiliating body with in the ranges specified above. candidates must be internally assessed on the entire practicum course and not only on the project. Even to them as part of their units of study.

Present Elementary Teacher Education Curriculum; An Overview

The latest D.Ed. curriculum (2013) prepared by SCERT inspired by National curriculum frame work for teacher education prepared by NCTE. The D.Ed. curriculum 2013 replaces the curriculum that was modified in 2005. NCFTE 2009 is inspired by the same concerns that lead to the revision of school curriculum by NCF 2005 and the increased responsibilities of primary teacher in the advent of RTE act 2009. Issues related to inclusive
education, perspectives for equitable and sustainable development, gender perspectives, role of community knowledge in education and ICT in schooling as well as e-learning become the centre-stage in the NCFTE. The NCFTE 2009 is developed with a degree program for elementary teacher education, particularly for teaching from classes 4-8, in mind.

The present D.Ed. curriculum shares same perspectives of NCFTE 2009 such as: Learner centred teaching approach, the facilitator role of teachers, the change in the concept of knowledge as it should be acquired by learner, reduce the influence of social context in education, continues and comprehensive evaluation. The curriculum visions a system where student teachers engage in the process called teaching right from the first day of teacher education. Along with gaining concepts and knowledge related to the specific subjects by presenting the content area either individually or as groups the student, also acquires methodological skills through repeated use. The curriculum focuses on moulding holistic teacher personality, inter disciplinary knowledge and developing of general skills such as language skills and ICT skills.

The D.Ed. curriculum of teacher education is broadly dealt with under foundations of education, curriculum and pedagogy and school internship. The foundations of education include learner studies, contemporary studies, and educational studies. Curriculum and pedagogy deal with curriculum studies, pedagogic studies and assessment and evaluation studies. The school internship is visualized by situating the practice of teaching in the broader context of vision and the role of teacher and sustained engagement with learners and schools.

The curriculum also proposes a new approach in practice teaching by introducing classes for pedagogic analysis and by implementing mentoring.
Elementary Teacher Education in Kerala

Mentors were chosen from the teachers of practice teaching school with minimum five years of experience and undergone through training in mentoring organised by teacher training institution. Mentoring is introduced with the hope of resolving the existing concerns of practice teaching raised by school teachers and to getting mutual benefits for both mentor and mentee.

Elementary Teacher Education - Semester system is suggested to make the learning process effective. The two-year D.Ed. course is divided into four semesters such as S1, S2, S3 and S4. The semesters S1 and S3 will be from June to October and S2 and S4 will be from November to March. A semester should have at least 100 working days. 22 papers are included in the four semesters. Of these, 13 papers will have public examination. The remaining 9 papers will have only Continuous Evaluation. If 5 hours a day is allotted, there will be a minimum of 500 hours for a semester. The teacher education institutions must take steps to utilize maximum working hours effectively. The evaluation of the learning process of the content in each semester has to be carried out during the semester itself. Continuous evaluation and terminal examination will be conducted at the end of the respective semester. The result of the semester evaluation will be published at the end of the semester.

There are six papers in the first semester. The paper 'Child Development and Learning', based on educational psychology and the one titled 'Curriculum and Pedagogy' for understanding the curriculum, pedagogy and evaluation are suggested in the first semester. In addition to this, the paper, 'Malayalam - History, Structure and Social Background' is suggested for learning the mother-tongue. The paper 'Proficiency in English Language' is suggested for English language learning. The papers 'Environment - A Textbook' related to Environmental Studies and 'Learning of Mathematics and Approach' related to the learning of Mathematics are included. There will be only internal evaluation for the English, Environmental studies and mathematics papers.
In the second semester, also there are six papers. 'Teaching of language - Theory and Practice' is the paper related to learning the mother-tongue. In connection with English language learning, the paper 'English Language Teaching - Theory and Practice' is suggested. 'Towards Environmental teaching/ learning' related to learning of Environmental Studies, 'Learning of Mathematics at the primary level' related to learning of Mathematics, 'Art Education and Work Experience' related to art education and work education and 'Health and Physical Education' are the papers suggested in the second semester. Terminal examination will only to be conducted for the English language learning, Environmental Studies and learning of Mathematics. In addition to this there is provision for teaching practice at the LP level.

A total of seven papers are suggested in Semester 3 (S3). 'Learner and Knowledge Acquisition' is the paper suggested here in connection with the learning of Educational Psychology. The paper 'The Social, Historical and Philosophical Foundation of Education' is suggested for building the social, and philosophic foundations of education. The paper titled 'Art Education and Work Education' related to art and work education and the paper titled 'Physical - Emotional Health and Health & Physical Education' related to physical education are suggested. The paper 'Language Learning and Literature', in connection with the learning of the mother-tongue and 'Pedagogy of English Language' in connection the English language learning are also there. Any one of the optional papers related to Mathematics, Social Science and Science need to be studied. 5 papers, on Educational Psychology, Philosophical Foundation, Art and Work Education, Physical Education and Language Learning will have Terminal Examination.

Only three papers are suggested for the fourth semester (S4). The paper titled 'Language Proficiency' related to learning of mother-tongue and 'Teacher - Professional Development' related to English language learning are suggested. The student teacher can select any paper related to Mathematics, Social Science and General Science. Teaching practice in the fourth semester
has to be done at the LP and UP levels. There will be terminal examination for optional subject and 'Teacher - professional development'.

Review of Related Studies

Review on status of teacher education

Reviews related to general status of teacher education is included here. Since the overall status can provide a clear perspective while discussing status with reference to quality and expansion.

Thakkar (1961) examined the administration programme work of the graduate teacher training colleges of Gujarat and revealed that the programme of some of the training colleges was consistent with the secondary school syllabus.

Jha (1962) in his critical study of Teacher Training Programme in Uttar Pradesh, concluded that the whole professional training programme including practice teaching, use of illustrative material, the theory courses and lecture work, specialization, all needed to be planned according to the rules made by the university. A complete revision and re-orientation of the curriculum was considered very necessary in the light of norms and standards set by NCTE.

SIERT, Rajasthan (1966) studied elementary teacher education to have a global picture of the teacher training institutes in the state. The study revealed that, on an average 130 students are admitted to each institute, about two thirds of the trainees belonged to rural area. Some of the institutions felt that the syllabus was too ambitious. Many of the institutions doesn’t have demonstration schools, and hence they faced many difficulties in making arrangements for practice teaching.

Marr (1970) in his intensive study of three colleges of education in Punjab, found that, colleges were not following the set rules for improvement
of the facilities and quality of teacher education program and the practice teaching was not up to the mark.

Tikamni (1970) evaluated the status and quality of elementary teachers training programme in Gujarat state. He collected opinions of teacher educators, headmasters, inspectors and primary school teachers. The study recommended that training programme should contribute to the future teacher efficiency. It should enable teacher trainees to understand child development and its importance. Knowledge of latest techniques of teaching, evaluation tools and measurements should be imparted to the trainees. The study, also suggested that the subject matter orientation be given to teacher trainees.

Marker (1975) conducted a survey on teacher education in the six universities of Maharashtra. He traces the development of teacher education in ancient India, in the communist countries, USA, U.K. and Thailand. The study was limited to the field of teacher education at the secondary level only during the period 1947 to 1973. The survey method was employed and tools of inquiry used were an opinionative, a questionnaire, records, reports and documents, visits to colleges, and interviews with experts, officials and principals of colleges. The findings of the study revealed that physical resource development predominated human resource development in teacher education.

Chaurasia (1977) notified remarkable development in teacher education in India. Inter-disciplinary approach in teacher education implemented by the four Regional Colleges of Education, Summer-Cum Correspondence Courses for Bachelor of Education Degree for clearing the backlog for untrained teachers, Establishment of NCTE, Establishment of the Centre for Advanced Studies in Education at M.S. University Baroda under the guidance of UGC, Establishment of State Institutes of Education in all
States, Publication of Education Commission Report by Government of India in 1966 and Increasing role of universities in school improvement were the important developments.

Butch (1979) in third all India educational survey, which was a census type survey of all school teachers in the country with the objective to collect comprehensive information about primary, middle and secondary school teachers focusing on qualifications and experience, professional training, participation in professional growth activities, tenure of appointment and mobility of teachers from the teaching profession. According to his study, there were 26,38,777 teachers in the country with 47.38 % teachers taught at the primary stage, 26.02 % at the middle stage, 14.4 % at the secondary stage and 12.2 % at the higher secondary stage. Only 25.24% are female, 7.23% belongs to scheduled caste, 9.48% belongs to scheduled tribes and only 2.5% of them belongs to SC/ST at higher secondary stage. Trained teachers among the primary teachers were 85% and 76.33% at secondary stage. 71.83% of teachers were permanent employees. Teachers participated in in-service teacher education programmes during last two years were 76% at primary stage and 37.09% at higher secondary stage.

Singh (1982) conducted Third National Survey of Secondary Teacher Education in India. The survey evaluated the status of secondary teacher educations with regard to their theoretical and practical instructional programmes, student population, staff, finance, physical facilities. According to the survey results, between 1963 and 1971, 48.5% more Teacher Education Institutions came into existence, around 381 at 1971. In 1971, 77.6% teacher education institutions were functioning as independent institutions rest of them as sections of colleges or university departments. Around 63% of TEI were managed by private management. Pass was rate around 90% and dropout percentage was six.
Gupta (1982) analysed that, in recent years, due to the research activities taken up by NCERT, SCERT, SIE, university education departments and some post graduate level training colleges, there is a spurt in research activity. Various education commissions raised concern over degrading quality due to unprecedented expansion of education in the post-independence period and the increased focus on in-service education. These quality concerns resulted in increased research Activities in the field of teacher education.

Guthrie (1983) evaluated secondary teachers training in Papua New Guinea and identified that the latest in-service bachelor of education programme supplied the enough middle level manpower. For the study, he collected socio-educational background data from 578 graduates and traced careers of 593 teachers and 55 teacher trainers using inspectorial questionnaires supplemented with interviews, observation, and performed extensive document analysis on teacher training and inspection system.

Kakkad (1983) conducted an analytical study on Secondary Teacher Education Curriculum with the aim of developing Teacher Education Programme. Based on the findings he suggested that the duration of the Secondary Teacher Education Programme (STEP) should be two academic sessions. According to the study the curriculum should include educational theory, practice teaching, community work, work experience, sectionals work and co-curricular activities. The course content should include two school methodology paper with fifteen lessons in both of them. Also, suggested a three-month internship period with provision for urban and rural teaching in STEP.

Kadwadkar (1984) made a critical study of professional courses for college teachers in India with main objective to analyse and evaluate
functioning of selected professional courses for college teachers. Findings of the study revealed issues like there was no information given on dealing with student behavioural problems, given very less weightage for practical work, No or very little scope was given to demonstrate professional abilities. Some theoretical information on action research was given. The study suggest that the courses should be modified so as to make them performance-based, the microteaching approach should be used to upgrade the teaching competence of teacher candidates and more weightage should be given to practical work.

Mohanty (1984) studied status of 19 Teachers Training Colleges in Orissa with special reference to Innovations. The finding showed that practice teaching confined to delivery of lessons alone and supervisors were not observing lessons completely. Poor teaching methods, lack of qualified method masters, and lack of explicitly stated evaluation criteria were common. Training in technique of observation, maintenance of classroom discipline and organization of functions and festivals were found in all the colleges. Innovations practiced in three colleges were Micro- teaching and Team Supervision of Criticism Lessons only.

Leelavathy (1984) conducted a comparative study of the teacher education programs in select developed and developing countries and found that, the teacher education programs in the developed countries were subjected to constant change in the light of the results of experiments in pedagogy, educational technology, philosophy of the nation while the developing countries were less dynamic in teacher education programs.

Dash (1985) investigated into the Development of Teacher Education programme with the aim of studying the factors that motivated the authorities to set-up private training colleges in Orissa with reference to Motivation Cost structure and Quality. He also tried to identify the source of finance, private costs and unit cost of B.Ed. programme and also tried to evaluate the quality
of the B.Ed. programme. Used questionnaires to collect data from 12 principals, 1200 trainees, and 120 teacher educators and 20 governing body members. The study revealed that most of the private colleges were established with commercial motives and parochial feelings. Undue expansion of training colleges, negative attitude of teacher educators towards the teaching profession, inadequate in-service teacher education, inadequate physical facilities, poor quality of trainees, inefficient teachers and unsuitable practice teaching and were the reasons for poor status of teacher training programmes in the state. The ratio of graduate trainees to post graduate trainees was 19:1 in private training colleges. There was no uniformity in teacher education curriculum among three Universities in the state. The lecture method dominated in teacher training programmes and the pupil-teacher ratio in Govt. colleges was 9:1 and in private colleges was 23:1. The unit private cost in private colleges was much higher than that in government colleges and the source of income for private training colleges were mainly from the contributions made by trainees.

Keck (1985) done a case study for the historical review of the development and organization of teacher education in the state of Florida. The objectives of the study included the strategies used in training teachers and the procedures used by the state of Florida to evaluate the effectiveness of teacher training programmes. The study recommends that this study of the historical development of teacher education in Florida should be updated every 10 to 15 years. Only educators observe, analyse, synthesize, and study the ways that teachers are prepared, so they only can endeavour to improve teacher education.

Seetharamu and Sharada (1986) carried out a status survey on secondary teacher education. The investigation was performed on both individual and institutional status. Institutional status includes physical
facilities, admission procedures and finance. Individual status means personal, economic, social, and professional attitude of teacher educators in the secondary teacher education institutions. They had a positive view about the building and the other infrastructure facilities and teaching methods adopted in teacher training colleges.

Pradhananga (1986) conducted an evaluative study of the status of elementary teacher education of Nepal and arrived at the following conclusions. The curriculum followed in Nepal gives highest importance to practical life situations. The student teachers were considered practice teaching as a very important component of curriculum. The study noticed that lack of physical facilities and non-democratic administration as drawbacks.

Koul (1988) while discussing teacher education and national policy of education had pointed some relevant issues for the immediate consideration to improve the status and condition of teacher education. These issues included updating the curriculum of teacher education and fair and objective selections of teacher trainees.

Mishra (1989) conducted a study about elementary teacher education programme. He reported that the primary teacher education curriculum did not specify the aims and objectives. Although there are content objectives, the curriculum did not suggest learning experiences for the realization of the proposed content objectives. Most of training schools did not have the enough infrastructural and instructional facilities. Criteria for selecting and appointing of teachers in training schools were not fixed. Majority of training schools complained about the heavy syllabus. Other problems faced by training schools were heavy work load, lack of expertise, inadequacy of equipment, paucity of funds and non-availability of practice teaching schools.
Srivastava (1989) evaluated the impact of the teacher education programme on attitude and teaching efficiency of student teachers. She found that, favourable attitude of student teachers is formed at the end of teacher training programme. The teacher education program, also improved teaching efficiency and aptitude of student-teachers.

Walia (1992) found that one-year duration was inadequate for the secondary teacher training courses. He also suggested improvements such as the course was mostly theoretical in nature and very less internship was provided.

Viswanathappa (1992) found that curriculum of elementary teacher education institutes in Andhra Pradesh was adequate for the realization of 64 out of 144 important objectives. The study also disclosed that majority of the teaching staff had no specialized training in the elementary education.

Gupta et al. (1995) in the documentation of in-service training practices in Western Region of India, under DPEP, reported many innovative practices. Teachers can be made motivated and hence more effective through making them part of decision making. If they are allowed to prepare and use their own teaching learning material (TLM), developed greater confidence in themselves, and gained recognition from their peers, their students and local community. Successful and the enthusiastic teachers were the best people to train their fellow teachers. The culture of co-sharing, co-working and co-learning with better inter-departmental coordination was present there.

Kumar (1996) compared secondary teacher education programmes in South Indian States. He found that the structure of teacher education followed by the curriculum is not fully in accordance with NCTE recommendations. Most of the aspects of the curriculum differs between universities and the curriculum remained un-revised for years.
Mohanty (1997) evaluated the functions of NCTE and how far it had been successful in performing those functions. Even though NCTE had stipulated 180 working days for secondary teacher education program, many of institutions are functioning only for 2-3 months in a year and most of them are taken the stipulation very lightly. He further suggested that norms and standards of NCTE should be strictly followed strictly by all the teacher education institutions.

Rout (1997) in his research on ‘organization of student teaching programme’ revealed that Pupil teachers were not being exposed properly to lesson planning, handling of audio visual aids, art of asking questions, and designing improvised aids. Adequate number of teaching aids and equipment’s are not available according to demand of pupil teachers and no feedback given to teacher trainees.

NCTE (1998) had studied the growth and development of teacher education in Delhi and it had observed that after independence there is an increase in number of secondary teacher education institutions at a very faster rate whereas the quality had deteriorated in the previous years.

Pandey (1998) compared National Council for Teacher Education (N.C.T.E.) with high power body like All India Council for Technical Education (A.I.C.T.E.) and Indian Medical Council (I.M.C.). NCTE is designated to upgrade the quality of teacher education at all levels in India. For fulfilling the objectives of Teacher Education, any new teacher education institute should be planned in accordance with the fixed norms of NCTE.

Arora and Panda (1999) advocated for the restructuring of teacher education programme. They said that considering the decline of teaching and teachers, the teacher education system requires a complete renovation rather than minor reforms, in its diverse aspects.
Sureshkumar (1999) opined that the regulatory norms set by NCTE have helped in improving the infrastructural amenities of institutions ultimately enriching the teacher training programmes.

Garg (2000) carried out a study on growth and development of teacher education in the post-independence period and he found that the teacher education after independence had expanded in fast rate. He also discussed about policy shifts in teacher education in the post-economic reform period.

Korthagen et al. (2001) reviewed both domestic and international literature of teacher education and found that, literature continues to lack references on the critical examination of teacher educators underlying beliefs and dispositions or to the professional development of teacher educators. It is need of the hour for teacher educators to examine their own learning and development, critically to achieve positive changes in teacher education.

Shardindu (2005) reviewed development of teacher education in India and found that government of India had played very significant role in setting up NCTE through a resolution of 1973, with the secretarial support provided by the Department of Teacher Education of the NCERT. The article further applauded the act of making NCTE a statutory body later on.

Nair (2006) pointed out that teacher education all over the world was under gone many radical changes. Many of these changes introduced to teacher education to accommodate the changes happening in general education. He further noticed that it was doubtful on the totality of response from teacher education in India for these changes. He further suggested that, to fall in line with the demands of the new knowledge society, teacher education in India needed several levels of updating.
Al-Sharaf (2006) in order to propose a new perspective on teacher education, examines the historical background of teacher education in the Kuwaiti educational system before and after Gulf war in 1990. The study recommended that high teaching wages would motivate teachers to do well in their work and that teacher education in Arab Countries in general face constraints and hindrances unique to the region which can therefore cause unique challenges for teacher training. The study also recognizes an issue concerning the balance between teaching educational theory, subject content and practice in teacher education.

Burnett (2006) give paradigmatic and narrative orientations for constructing professional knowledge among pre-service and in-service teachers. He found that the method in which professional knowledge is depicted in initial teacher education in England and Wales is significant. It inspires the way that students participate with their development.

Sethuraman (2007) commented that NCTE (National Council for Teacher Education) had failed to plan and efficiently coordinate the development of teacher education in the country even though NCTE claimed that it had been given a broad mandate to achieve planned and coordinated development of teacher education in the country. It had actually open the way for overthrowing the existing teacher education programme. He pointed out that the negative approaches of NCTE should be factually studied.

Kothari and Shelat (2009) critically evaluated the Teacher Education Programme in the country in their article on, some issues on secondary teacher education program. They commented that the present state of secondary teacher education in the country presents a mixed picture of innovations coupled with learning distortions, far-sighted intentions and structural shortcomings. The system by and large remained unchanged even though there are some name changes. The admission policies and procedures
and criteria for admission differed from state to state and within the state it differed from university to university. Knowledge and teaching aptitude had hardly made as criteria for admission. Other findings include the teacher-student ratio also varied from State to State, practice teaching programme was far from satisfactory and there was no integration among secondary, primary and pre-primary teacher education institutions. They advised to set-up state/National level association of teacher education institutions.

Sharma (2009) in his article on teacher education and the education commissions in India post-independence period studied almost all aspects of teacher education. He noticed that all the education commissions gave some thought to the question of initial teacher preparation, with its economic or social implications. The author, after carefully analysing all the aspects of teacher education recommended that in order to perform the leadership role, it would be an advantage of each training college could be given the responsibility of supervising the work of a certain number of schools in the neighbourhood, which would improve their standards and, enable the members of the staff to give practical shape to their ideas.

Gupta (2011) in a study compared the teacher education systems India and United States of America. She has found many striking differences between the two systems. The study recommends decentralised approach in administration is needed in India like USA. Also, the course duration should be extended with at least one semester of practice teaching, as it is in USA. The study also found the, in USA along with the passing scores of basic skills test and subject matter test, personal goal statement informing that the candidate is committed to his professional career and intellectual curiosity and two letters of references one from professor in department of education and other from the department in which the candidate wants to do his content specialization are also needed.
Singh (2011) compared the research in teacher education during the British rule and in free India. In India degree in teacher education can be obtained from premier institutes, self-financing colleges, or even from correspondence, Quality of the product cannot be assessed, it is the function of NCTE to bring sanity into the system. In India, many types of teacher education system, such as Buddhist, Sanskrit school, Maktabs and Madrasah, but only one model has been followed. During 2004-05, 70,980 B.Ed. seats increased, NCTE criteria for teachers with M.Ed. qualification is 1:15, to meet these more than 4000 teachers are needed, but only 470 additional teachers are appointed, this is not a planned development of teacher education. Also, there is an imbalance in distributing the total number of B.Ed. seats between the four regions, for example, 25% of seats are approved in UP alone.

Mayer, (2014) analysed the history of teacher education in Australia from 1974 to 2014. She focussed on three phases in the growth and development of teacher education in the past 40 years by considering the ways in which teacher education has been thought about at various points in time and analysing the related policies for funding governance and regulation. She finished by focusing on the current policy moment in Australia which is positioning teacher education as a "policy problem" requiring a national solution and consider the role of research in, on and for, teacher education into the future.

**Summary of related studies on status of teacher education**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>Thakkar</td>
<td>Administration programme of the training colleges were consistent with the secondary school syllabus.</td>
</tr>
<tr>
<td>1962</td>
<td>Jha</td>
<td>Teacher Training Programme in Uttar Pradesh, concluded that the whole professional training programme including practice teaching, use of illustrative material, the theory</td>
</tr>
</tbody>
</table>
Review of Literature

courses and lecture work, specialization, all needed to be planned according to the rules

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Citation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>SIERT rajastan</td>
<td>Many of the institutions doesn’t have demonstration schools, and hence they faced many difficulties in making arrangements for practice teaching.</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>Marr</td>
<td>Teacher education colleges were not following the set of rules for improvement of the facilities</td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>Tikamni</td>
<td>Recommended that training programme should contribute to the future teacher efficiency</td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Marker</td>
<td>The findings of the study revealed that physical resource development predominated human resource development in teacher education.</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>Chaurasia</td>
<td>Noted the Establishment of NCTE, Establishment of the Centre for Advanced Studies in Education at M.S. University Baroda under the guidance of UGC, Establishment of State Institutes of Education in all States, Publication of Education Commission Report by Government of India in 1966 and Increasing role of universities in school improvement were the important developments.</td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>Butch</td>
<td>There were 26,38,777 teachers in the country with 47.38% teachers taught at the primary stage, Trained teachers among the primary teachers were 85% and 76.33% at secondary stage.</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>Singh</td>
<td>77.6% of secondary teacher education institutions were functioning as independent institutions, rest of them as sections of colleges or university departments.</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>Gupta</td>
<td>In recent years, due to the research activities taken up by NCERT, SCERT, SIE, university education departments and some post graduate level training colleges, there is a spurt in research activity</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>Kakkad</td>
<td>Duration of the Secondary Teacher Education Programme (STEP) should be two academic sessions</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>Guthrie</td>
<td>Evaluated teacher Training in Papua New Guinea and identified that the latest in-service bachelor of education programme supplied the enough middle level manpower.</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>Kadwadkar</td>
<td>The study suggest that the courses should be modified so as to make them performance-based, the microteaching approach should be used to upgrade the teaching competence of teacher candidates and more weightage</td>
<td></td>
</tr>
</tbody>
</table>
should be given to practical work.

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>Mohanty</td>
<td>Practice teaching confined to delivery of lessons alone and supervisors were not observing lessons completely. Poor teaching methods, lack of qualified method masters, and lack of explicitly stated evaluation criteria were common.</td>
</tr>
<tr>
<td>1984</td>
<td>Leelavathy</td>
<td>The teacher education programs in the developed countries were subjected to constant change in the light of the results of experiments in pedagogy, educational technology, philosophy of the nation while the developing countries were less dynamic in teacher education programs.</td>
</tr>
<tr>
<td>1985</td>
<td>Dash</td>
<td>Undue expansion of training colleges, negative attitude of teacher educators towards the teaching profession, inadequate in-service teacher education, inadequate physical facilities, poor quality of trainees, inefficient teachers and unsuitable practice teaching and were the reasons for poor status of teacher training programmes in the state.</td>
</tr>
<tr>
<td>1985</td>
<td>Keck</td>
<td>The historical development of teacher education in Florida should be updated every 10 to 15 years. Only educators observe, analyse, synthesize, and study the ways that teachers are prepared, so they only can endeavour to improve teacher education.</td>
</tr>
<tr>
<td>1986</td>
<td>Seetharamu</td>
<td>Teacher educators had a positive view about the building and the other infrastructure facilities and teaching methods adopted in teacher training colleges.</td>
</tr>
<tr>
<td>1986</td>
<td>Pradhananga</td>
<td>The curriculum followed in Nepal gives highest importance to practical life situations. The student teachers were considered practice teaching as a very important component of curriculum. And noticed that lack of physical facilities and non-democratic administration as drawbacks.</td>
</tr>
<tr>
<td>1988</td>
<td>Koul</td>
<td>To improve the status and condition of teacher education updating the curriculum of teacher education and fair and objective selections of teacher trainees are necessary.</td>
</tr>
<tr>
<td>1989</td>
<td>Mishra</td>
<td>Problems faced by training schools were heavy work load, lack of expertise, inadequacy of equipment, paucity of funds and non-availability of practice teaching schools.</td>
</tr>
<tr>
<td>1989</td>
<td>Srivastava</td>
<td>Favourable attitude of student teachers is formed at the end of teacher training programme.</td>
</tr>
<tr>
<td>1992</td>
<td>Walia</td>
<td>Course was mostly theoretical in nature and very less internship was provided.</td>
</tr>
<tr>
<td>Year</td>
<td>Author</td>
<td>Description</td>
</tr>
<tr>
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</tr>
<tr>
<td>1992</td>
<td>Viswanathappa</td>
<td>In Andra Pradesh that majority of the teaching staff had no specialized training in the elementary education.</td>
</tr>
<tr>
<td>1995</td>
<td>Gupta</td>
<td>Practices in Western Region of India, under DPEP, reported many innovative practices. Teachers can be made motivated and hence more effective through making them part of decision making</td>
</tr>
<tr>
<td>1996</td>
<td>Kumar</td>
<td>The structure of teacher education followed by the curriculum is not fully in accordance with NCTE recommendations</td>
</tr>
<tr>
<td>1997</td>
<td>Mohanthy</td>
<td>Norms and standards of NCTE should be strictly followed strictly by all the teacher education institutions.</td>
</tr>
<tr>
<td>1997</td>
<td>Rout</td>
<td>Adequate number of teaching aids and equipment’s are not available according to demand of pupil teachers and no feedback given to teacher trainees.</td>
</tr>
<tr>
<td>1998</td>
<td>NCTE</td>
<td>After independence, there is an increase in number of secondary teacher education institutions at a very faster rate whereas the quality had deteriorated in the previous years.</td>
</tr>
<tr>
<td>1998</td>
<td>Pandey</td>
<td>For fulfilling the objectives of Teacher Education, any new teacher education institute should be planned in accordance with the fixed norms of NCTE.</td>
</tr>
<tr>
<td>1999</td>
<td>Suresh kumar</td>
<td>Regularity norms set by NCTE have helped in improving the infrastructural amenities of institutions ultimately enriching the teacher training programmes.</td>
</tr>
<tr>
<td>2000</td>
<td>Garge</td>
<td>Teacher education after independence had expanded in fast rate</td>
</tr>
<tr>
<td>2001</td>
<td>Korthagen</td>
<td>It is need of the hour for teacher educators to examine their own learning and development, critically to achieve positive changes in teacher education.</td>
</tr>
<tr>
<td>2005</td>
<td>Shardindu</td>
<td>Government of India had played very significant role in setting up NCTE through a resolution of 1973, with the secretarial support provided by the Department of Teacher Education of the NCERT.</td>
</tr>
<tr>
<td>2006</td>
<td>Nair</td>
<td>Teacher education all over the world was under gone many radical changes. Many of these changes introduced to teacher education to accommodate the changes happing in general education.</td>
</tr>
<tr>
<td>2006</td>
<td>Al-Sharaf</td>
<td>The study recommended that high teaching wages would motivate teachers to do well in their work.</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Statement</td>
</tr>
<tr>
<td>------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2006</td>
<td>Burnett</td>
<td>He found that the method in which professional knowledge is depicted in initial teacher education in England and Wales is significant.</td>
</tr>
<tr>
<td>2007</td>
<td>Sethuraman</td>
<td>Commented that NCTE (National Council for Teacher Education) had failed to plan and efficiently coordinate the development of teacher education in the country.</td>
</tr>
<tr>
<td>2009</td>
<td>Kothari and Shelat</td>
<td>The present state of secondary teacher education in India, presents a mixed picture of innovations coupled with learning distortions, far-sighted intentions and structural shortcomings.</td>
</tr>
<tr>
<td>2009</td>
<td>Sharma</td>
<td>In order to perform the leadership role, it would be an advantage of each training college could be given the responsibility of supervising the work of a certain number of schools in the neighbourhood.</td>
</tr>
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<td>2011</td>
<td>Gupta</td>
<td>The study recommends decentralized approach in administration is needed in India like USA. Also, the course duration should be extended with at least one semester of practice teaching.</td>
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<tr>
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</tr>
<tr>
<td>2014</td>
<td>Mayer</td>
<td>Found that current policy movement in Australia which is positioning teacher education as a &quot;policy problem&quot; requiring a national solution and consider the role of research in, on and for, teacher education into the future.</td>
</tr>
</tbody>
</table>

**Reviews on quality of teacher education**

Chohan (1962) evaluated the quality of teacher training programme of the women training college, Dayalbagh, Agra, and reported that the theory syllabus was neither heavy nor superfluous. Syllabus was most useful and necessary for the knowledge required for teaching. According to teacher trainees the demonstration lessons by the lecturers should be both at the start of the teaching practice period and during the teaching practice period were necessary. The teacher trainees felt that co-curricular activities should be organised in the mornings instead of at noon.
Prashar (1963) conducted a study for evaluating the quality of teacher training programmes during 1952-1962 and recommended that theory should be coordinated with practice much more than is done so far. Also, identified the need of all round training including organisation of library, museum, exhibition, drama, musical shows, hobbies etc. Also, recognized the need for organising refresher courses after every five to seven years.

Kothari (1966) in Education Commission report after reviewing the status and service conditions of teachers had commented that, “Of all the different factors which influenced the quality of education and its contribution to national development, the quality, competence and character of teachers were undoubtedly the most significant. Nothing was more important than securing a sufficient supply of high quality recruits to the teaching profession, providing them with the best possible professional preparation and creating satisfactory conditions of work in which they could be fully effective.”

Bhatt M.M. (1966) made a study on the assumption that, qualitative improvement in education was possible by preparing better teachers in training institutions. As a result of the training, he found that there was improvement in lesson planning and standard of teaching, knowledge of the content was found to be much improved and teacher trainees were encouraged to teach in a planned manner.

Ahluwalia (1974) designed a Teacher Attitude Inventory (TAI). Using the inventory, he measured the change in the professional attitudes of pre-service teacher trainees as a result of the teacher education course of one academic year duration. The mean attitude scores were found to be decreasing instead of improving at the end of the training programme. the nature of training programme provided by the different institutions made positive or
negative change in mean attitude scores. The sex, institutions have no significant effect on attitude.

Vasishtha (1976) studied the Change in Some Characteristics and Verbal Behaviour of Secondary Science and Mathematics Student Teachers Through Training in Verbal Interaction Technique. The objectives of the study are to explore the classrooms behaviour of secondary science and mathematics student teacher’s trainees through the Flanders Interaction Analysis Category System (FIACS) and to evaluate the effect of training in the verbal interaction analysis technique. The findings revealed that the training in Flanders verbal interaction technique contributed significantly to the attitude towards teaching, self-perception and classroom performance. Student teachers trained in FIACS became more indirect in dealing with their students.

Gupta (1979) in his study of the in-service teaching needs of the secondary teacher-educations presents following findings: There was a weak association between the qualifications of secondary teacher-educators and their in-service education proneness, and also between the teaching experience and the in-service education proneness of teacher-educators. socially useful productive work, vocationalisation, working with the community, non-formal education, and pedagogical and methodological subject are to be included in the in-service teacher education courses to cope with the emerging curricular changes at the school level and subsequently at the teacher education level.

Aggarwal (1980) attempted to identify the motivational factors for choosing teaching as a profession among secondary teacher trainees. He found that desire to continue education, possibility of doing good to the country, interest in teaching, security of job and fulfilment of parent’s wish are the important factors in choice of teaching as a profession.
Mann (1980) attempted to find out the concept of success in the teaching of different groups and compared the personality traits of successful teachers with those of unsuccessful teachers. He found that the personality of successful and unsuccessful teachers differed with respect to many selected factors. The successful teachers were significantly more expressive, ready to cooperate, attentive to pupils, generous in personal relations, bright and alert, fast in learning, efficient in abstract thinking, emotional in nature, realistic about life, effective in adjustment, dependable and conscientious than unsuccessful teachers.

Mutha (1980) tried to find out the factors like attitudinal, motivational and personality, which were differentiated effective teachers from ineffective ones. He found that professional training, nature of schooling, income levels and sex were significantly associated with the effectiveness of teachers. The teacher effectiveness significantly predicted by set of personality variables in ascending order are submission, anxiety, marital adjustment, extroversion, neuroticism, job satisfaction and teaching attitude.

Bhatnagar (1980) tried to analyse the contents of studies and literature on student teaching and other practical work in the secondary teacher education programme till 1980 and to suggest the future perspective of studies in these areas. Those studies covered different areas like evaluation of student teaching and supervision of student teaching with special reference to secondary teacher education. None of the studies had concentrated on the practical work of the secondary teacher education programmes. These studies emphasized the need for a comprehensive network of school activities to be included in student teaching programmes and highlighted the negligence in organization of teacher training institutions and their rigid structure. A few studies revealed that student-teaching was the weakest link in the teacher education programme at primary as well as secondary level. Most of the
studies during seventies are concentrated on micro teaching. He also talks about NCTE teacher education curriculum framework in 1978 and its impact on giving a new look to student teaching.

Goyal (1980) in his study about the relationship among attitude, job satisfaction adjustment and professional interest of teacher educators and revealed that a large majority of the teacher educators were favourably inclined towards their profession and well satisfied in the job.

SCERT (1981) made an evaluation on the quality of administrative and academic aspects and the relevance of the course content of in-service programme of primary teachers in Andhra Pradesh. The study disclosed that, there was too much interference from deputy educational officers, headmasters were reluctant to send the teachers for in-service courses, and lot of paperwork was needed for attending in service programmes. The participants felt that the training programme was good and helped in developing knowledge about new concepts in science.

Bhattacharjee (1981) studied the effect of integrating a few selected teaching skills upon the teaching competence of secondary teacher trainees. The study revealed that training for the integration of the four selected skills (introducing a lesson, fluency in questioning, increasing pupil participation, and using the blackboard) under the summative model integration had contributed to the teaching competence of the experimental group significantly in comparison with the control group.

Shukla (1981) and Passi and Sharma (1982) were tried to find out competency skills for teachers. Language teachers at secondary school level need following competencies such as giving assignment, loud reading, asking questions, introducing a lesson, managing the classroom, clarification, secondary loud reading, using the blackboard, using reinforcement, pacing,
avoiding repetition, consolidating the lesson, dealing with pupils' responses, improving pupils' behaviour, audibility, using secondary reinforcement, recognizing pupils attending behaviour, presenting in verbal mode, and shifting the sensory channel. While skills which were involved in the teaching of mathematics are skill of developing a concept, skill of developing a principle, skill of applying the inductive approach and deductive approach, skill of figure drawing and skill of applying problem solving approach.

Srivastava (1982) conducted research on the topic “Effectiveness of the Teacher Education Programme.” The findings reveal that all the colleges, having a teacher-education department were unequal in size and facilities and none were initially opened with the intention of providing facilities for teacher education. The teacher educator-student ratio was 1:14, which was higher than prescribed by the government. Sixty per cent of the departments did not have educators in all school subjects on their staff. None of the teacher educators had double postgraduate degree, less than ten per cent of them had a doctorate degree. Most of them were committed to the profession but were unable to take part in extra-professional activities due to various college and personal engagements. The educators were not very clear about the objectives of the programme. Facilities for non-teaching staff was inadequate. As regards departmental administration, the departments were not independent entities. Coordination between the department and secondary schools, other training schools and departments, and the community was lacking. Admission rules, as prescribed by the state government were followed, which had many drawbacks. The whole programme comprised theory teaching, practice teaching and sessional work. Average working days were only 118. There was little uniformity in organizing practice teaching and sessional work in the various departments. The output of the programme was not at par with the capacity of production. Wastage of more than nine per cent was observed.
Three-fourths of the trainees from rural areas. Only 48 per cent of the trainees were found to be of the average or higher teaching aptitude category after training. There was no significant contribution of the programme in developing teaching aptitude among trainees. In the opinion of college principals and teacher-educators, the existing conditions and working of the programme were not good. Changes are advised in the programme, were in its curriculum, organization of practice teaching, admission and evaluation procedures, establishment of independent colleges of education, teacher educator orientation and research facilities.

Bhagoliwal (1982) and Jain (1997) were studied quality of teacher effectiveness in teacher education institutions. The studies revealed that more effective teachers were characterized by a fairly higher level of differentiation and integration in their cognitive and perceptual functioning. Effective teachers had a superior capacity for imaginative and original thinking, well-developed value system and ego organization. Intelligence, creativity and interests were characteristically interrelated in promotion of proficiency in teaching.

Gupta (1982) evaluated the innovative practices of teaching in the colleges of education in his Ph.D. work with main objective of the study was to evaluate the effectiveness of the innovative methods in the direction of better learning and higher achievement in colleges of education. The results showed that the methods of discussion, symposium and supervised study were more effective than the lecture method. The discussion method proved to be very helpful to the lower intelligence group, the symposium method also gave better results and proved to be definitely more useful to the average group. The workshop method proved to be definitely superior in the case of the general group as well as the higher intelligence group. All the innovative
methods, except the lecture-cum-discussion method, had established their advantage over the lecture method.

Sinha (1982) had conducted an evaluative study of primary and secondary teacher education in Bihar in his Ph.D. work. The main objectives of the study were to evaluate innovative programmes in the field of teacher education and to examine the impact of these programmes on the quality of output. Sample of the study was based on a randomly selected sample of 44 primary teacher education colleges out of a total of 84 colleges and all the ten secondary teacher education colleges in Bihar. A questionnaire, consisting of forty items seeking personal data, institutional data, information about teachers, students, syllabus, and evaluation process, was prepared for the principals and the teacher-educators. The principals and the senior teacher educators were also interviewed to verify the entries in the questionnaire and for missing items of information. The main findings showed that at the primary level, about 60 per cent of the teacher-educators were trained graduates and their performance was not satisfactory. Over 77 per cent colleges had no building of their own and 65 per cent colleges had their buildings in poor condition. Majority of the colleges had inadequate staff, library, equipment’s and laboratory. Recent innovations in teacher education had not been incorporated into the system. In-service programmes were not carried on effectively and there was little attention paid to follow up programmes. The evaluation process had remained traditional. Practice teaching in colleges of education was being neglected.

Gupta (1983) studied the correlation of teacher performance in Simulated Teaching at Secondary Level. Simulation technique resulted in significant gain in taxonomical performance and classroom performance rating of secondary science and mathematics student teachers. When student teachers were exposed to simulated teaching, they gained Indirect Teacher
Talk and lost in their Pupil-Initiative Ratio (PIR). Student teacher with a high positive attitude towards teaching gave better performance through simulated teaching. Student teachers of high academic ability showed the desired effect on their teaching behaviour or teaching performance through simulated teaching.

Joshi and Kumar (1983) studied the effect of the skill-based approach and decision-making ability on developing the teaching competence on B.Ed. students. The findings showed that the mean performance was significantly higher in case of the group where the number of skills, time duration and number of students gradually increased in the light of their teaching competency scores compared to the groups where all skills where taken together.

Sidhu (1983) in a follow up study of secondary school teachers trained through different approaches found that Micro-teaching was superior to the conventional training approach in developing general teaching competency and professional teachers were found superior to novice teachers in general teaching competency. Training on the self-perception of the teachers about their own teaching effectiveness, and on the perception if the heads if schools with regards to their teaching effectiveness there was no significant effect. It was suggested that instructional materials for different skills in the form of booklets should be prepared. Principals and teacher educators should be oriented in the new techniques of classroom interaction analysis, simulation, role playing and feedback.

Valand (1983) in his study on the innovative approaches in primary teacher training colleges of Gujarat and found that the mean innovation proneness score was high for experienced teacher educators and those possessing post-graduation.
Hemambujam (1983) conducted study of the quality of teacher education at the secondary level in Tamilnadu with the objective of locating deficiencies in the system. The findings include the state controlled selection on teacher educators based on reservation, lack of content knowledge in the B.Ed. curriculum, ineffective implementation of the curriculum due to time shortage, and missing selection committees in some colleges. She further suggests that to improve the quality of teacher education the cooperating colleges and schools should work in harmony, follow latest methods and compulsory residential programmes.

Bawa (1984) studied the Effectiveness of Micro teaching with Planned Integration Training and found that exposure to Micro-Teaching resulted in improvement of teaching competence. After following summative model of micro teaching without planned integration training, did not result in wholesome and uniform improvement in teaching competence. Speed and presentation, and maintenance of discipline were the two component skills of general teaching competence which were not much affected by participation in integration-based instruction.

Chathley (1984) found that there was significant improvement in the quality of general teaching competence of trainees as a result of training in micro-skills and training in integrated skills in his experimental study of teaching competency at Macro-level as a function of training in micro-skills among the prospective secondary school teachers in relation to skills and subject area. In his study, he compared bi, tetra and hexa-clustered strategies of integration of skills in terms of general teaching competence. Tetra clustered and hex clustered strategies more effective among physical science trainees. For trainees in languages, all strategies were equally effective. Among the social sciences trainees, the tetra clustered strategy was more effective than the other two strategies. For skill of explaining, introducing a
lesson, reinforcement and blackboard use, the trainees in physical sciences gained quantitatively more than the trainees in social sciences and languages. For skill of fluency in questioning and achieving closure, the overall quantitative performance of male trainees was significantly better than that of their female counterparts, while for skill of blackboard use, the quantitative gain was more for female trainees.

Naik (1984) in his comparative study of the effect of Micro-teaching and conventional approaches of teaching training upon pupil’s perception and general teaching competence of pre-service teacher, and observed that there is no significant difference in the gain scores of general teaching competence of student teacher trained in micro teaching and conventional teacher training programme. It was suggested that instead of single skill practice, clusters of skills should be practiced, and a unit to be taught during a 40-minute period should be given to a student teacher throughout Micro-teaching lessons. Teacher Training Institutions may use either peer feedback or/and peer-cum-audio tape feedback during Micro-teaching session, and instructional materials on various teaching skills should be developed.

Natarajan (1984) conducted an evaluative study on the quality competency based programme in teacher education curriculum. According to the study competency-based instruction proved suitable for teaching selected units in Institutional Planning and Administration. The seminar method seemed to be an effective method as it compared favourably with the competency based approach. The lecture method was effective as a group method. Directed self-study did not compare well with other methods. There was a significant relation between self-esteem and acquisition of competencies. Attitude towards teaching methods had a favourable correlation with acquisition of competencies. The study proved that teacher
education programmes could be made more effective through a competency-based approach.

Swamy (1984) worked on diagnosis and remediation of deficiencies in basic understanding of prospective teachers of secondary school physics and found that there is an imperative need to provide adequate bridge courses or parallel or inbuilt remedial courses in content as part of the methodology courses in the B.Ed. programme to remedy deficiencies in the content, and to ensure reasonable mastery of at least the basics or the essence thereof. A properly designed remedial course on the clarification and mastery of important concepts, principles and other generalisations in the subject can effectively remove the deficiencies. Analysis of basic understandings and skills in school courses in all subject areas, self-instructional materials, packages covering all the units of the school courses, would strengthen the methodology courses in pre-service and in-service teachers, and raising the functional effectiveness of teacher-education programmes.

Syag (1984) studied teaching competence of pre-service and in-service teachers trained through different treatments of Micro-teaching. He observed that the Micro-teaching approach should be made an integral part of the student teaching programme. At least two continuous periods should be allotted for practicing skills in Micro-teaching.

Teprongtong (1984) in his study on the role expectations and the role performance of college supervisors on student teaching found that the expectations of school principals, co-operating teaching and students-teachers did not differ on academic, skill development, guidance and overall supervisory role. Mean differences showed that student teachers expected a liberal rather than a critical evaluation in practice teaching. The school principals and co-operating teachers were more concerned with the practical
aspect of student teaching than the academic one and their expectations on the role of college supervisors of evaluation, of teaching skills, guidance and skill development were significantly higher than the academic role. Student teachers were more concerned with developmental help than academic help and critical evaluation.

Haddad (1985) stated that the educational qualification and experience of teachers are some of the indicators for the quality of teachers. Although highly qualified persons need not necessarily be more efficient and committed, still there seems to be a handful of knowledge and skills that teachers must possess for teaching different subjects at different levels below which they cannot teach effectively.

Deo (1985) conducted a study on the practical programme other than practice teaching in Teacher Education Institutions in Delhi with objectives of finding the role, implementation, nature and type of practical work and to suggest an effective scheme of practical work. Also, the study tried to find out perception of student teachers about the practical work. The major findings include Lack of time, lack of proper guidance, lack of sufficient opportunities and lack of feedback from the teachers are the main obstacles. The student-teachers were not provided facilities for training in preparation of some visual and audio aids. Physical education and participation in games and sports were taken equally by student teachers. Excursions for students-teachers were not arranged by the institutions. Social work had not been an integral part of the teacher education programme. Co-curricular activities were not organized according to the interests and needs of the students. There was no provision for psychology practical which would give student teachers opportunities for application of theories of learning.

Shah (1986) conducted a survey of management of student teaching in India which included 46 Secondary Teacher Training Colleges of 13 States of
the country. The study revealed that most of the institutions doesn’t pay much attention to the content of the lesson. Increase the competence of trainees to teach on the basis of accepted principles of learning and teaching was favoured by majority of institutions. Unit planning and evaluation were used for preparation of lesson plans in most of the cases. There was no common pattern followed on weightage given to different aspects of practice teaching. In most of institutions a panel of supervisors evaluated the trainees at final evaluation. Training on use of film strips, use of CCTV and VCR were rare in teaching learning situations.

Passi, Singh and Sansanwal (1986) developed a training strategy for training teacher educators in Models of Teaching. The training was based on orientation in the theory of the model, lesson plan guide, teaching analysis guide through lectures and discussion. This was followed by demonstration lessons and practice. The training strategy was found to be effective in terms of theoretical understanding of the model and a favourable change in teacher educator’s reactions towards models of teaching. In this study, the Concept Attainment Model and Inquiry Training Models were taken up. In 1986 this strategy replicated with Advance Organizer Model and Jurisprudential Inquiry Model. During 1988, a national project completed with the Value Discussion Model and Jurisprudential Inquiry Model. NCERT Again in 1988, a new batch of teacher educators were trained in the Value Analysis Model for studying its impact on the value clarification ability of student teachers.

Dogra (1986) conducted a study on effect of training in concept development strategies upon classroom communication behaviour patterns and found that student teachers trained in the use of content analysis system. The findings show that there is a significant increase in defining, concrete examples, negative examples, amplification and vivid categories. Also, there
was a decrease in the use of background, naming, general examples, abstract examples, digression and miscellaneous categories.

Kalyanpurkar (1986) in his study showed that Micro-teaching treatment had a positive significant effect on the development of skills like Probing Questions, Reinforcement, Explaining with Examples and Stimulus Variation. The study also revealed positive significant impact on pupil’s attainment, retention, their liking for teachers. The main implications of the study were the Micro-teaching should find a place in in-service teacher education programmes as it has positive impact on general competence of student teachers. General orientation in Micro-teaching techniques, discussion of the skill to be practiced relevant materials, demonstration of skills in simulated condition, discussion and observation, practice of the skills in simulated condition followed by regular teaching and opportunity to utilize the acquired skills to classroom situations should be included in teacher training programmes.

Oak (1986) in his critical study of teaching techniques observed that while training the science student teachers, activities such as teacher talk, questioning and demonstration should be taken into account in preferential order. The study also states the mathematics teachers needed training in the order of priority in activities such as explanation, questioning and blackboard work. In the case of teaching of mother tongue, the order of priority was teacher talk, reading, recitation and questioning.

Ekbote (1987) Developed a Strategy for Integration of Skills in Teacher Training. All the seven variables such as qualification, teaching experience, availability of study time, academic achievement, skill comprehension, attitude towards teaching and towards Micro-Teaching impacted on the improvement in classroom teaching performance through the strategy. The content units of the strategy were the use of questioning and
explaining, use of blackboard, use of visual media, reinforcement personalization, inquiry approach, variables influencing classroom teaching, diagnostic and remedial practices and organization of co-curricular activities related to classroom teaching.

Brousseau (1988) in his article on beliefs and cultures of teaching, opined that teacher efficiency was more likely to increase during the period of pre-service training particularly during the first practice teaching episode.

Chaudhary(1989) from his study Teaching of Concepts Through Concept Attainment Model and Facts Through Traditional Teaching: Competency in Teaching Skills of Preservice Teachers found that the teaching skills and competence developed among student teachers through the use of Concept Attainment Model are easily transferable in other teaching situations, besides the teaching of concepts; this study recommended the use of concept attainment model instead of spending much time on the micro-teaching technique to develop teaching skills.

Kahlon and Saini (1989) pointed out the impacts of teacher education on the teaching aptitude of education graduates of Punjab Agriculture University. The relationship between teaching aptitude and academic achievement was also investigated. Twenty students of secondary teacher education programme participated in the study. After measuring teaching aptitude was measured in terms of various personality traits, researchers concluded that teacher education helps to develop teaching aptitude and the academic achievement has low positive correlation with teaching aptitude.

Wong (1990) studied perceptions of primary teacher trainees in Singapore on their own competence and control in the task and their attitude towards it. Comparisons of perceptions of competence and control in their
teaching performance before and after teaching practice indicate the consistence of casual attribution of teaching.

Bhosale (1992) conducted a critical study of the new curriculum of teacher education developed by all the universities in the state of Maharashtra. According to the study majority of principals, teacher educators and teacher trainees possessed the opinion that the new curriculum was suitable for developing teaching competence among the teacher trainees.

Das (1992) in his study of the effectiveness of the present curriculum of the one-year junior basic training programme for the teachers of primary schools of Assam in developing the proper attitude towards the teaching profession, found that the impact of curriculum of on developing a proper attitude towards teaching rather favourable for both rural and urban teachers.

Kukerti (1992) examined psychological correlates of successful teachers. The findings of the study revealed that there was a significant correlation between the variable teaching success and teaching aptitude.

Yadav (1992) researched the impact of teacher training on certain personality characteristics of trainees. The findings of the study led to the conclusion that the teacher training had a significant influence on the self-concept, social maturity and attitude towards the teaching profession of student teachers.

Mahajan (1992) conducted A Comparative Study of the Effectiveness of Two Models of Teaching such as bruner's concept attainment model and Ausubel’s Advance Organizer Model on Teaching Abilities of Student-Teachers and on Achievement of Students in Various Schools and found that during the peer group sessions as well as classroom teaching sessions, the group taught by concept attainment model was found to be superior to the groups taught by advance organizer model.
Sharma (1992) in his book, stressed about the quality of teacher education system that the teacher education system should be structured according to the emerging needs of the modern Indian society. The teacher should be equipped with all the necessary skills needed to train the future citizens of this country.

Singh (1992) conducted a study of Teachers’ Effectiveness and its Correlates at Higher Secondary Stage in Eastern U.P. in his Ph.D. research. The study showed that there is no significant relationship between teacher effectiveness and gender, teacher effectiveness and locality. The teaching effectiveness was significantly co-related with intelligence and attitude towards the teaching profession. The teacher-effectiveness scores of rural male and female teachers appeared to be significantly related with intelligence, socio-economic status and adjustment.

Singh (1995) compared the effectiveness of discussion method and the traditional method. The study found that, the discussion method contributed more to the achievement of student teachers in comparison to the traditional method of teaching at secondary teacher education level.

Singh (1995) emphasized that the educationists in the country were greatly concerned with the continued deterioration in the quality of teacher education. The non-statutory NCTE in 1987 had opposed the correspondence courses being run for the first degree in education. In-spite of efforts from various quarters, more and more universities had started B.Ed. (Correspondence) courses.

Gafoor (1996) performed a critical study of the functioning and work efficiency of the District Institutes of Education and Training. The study revealed that (i) the availability and utility of material facilities and resources in DIETs were not satisfactory (ii) a participatory democratic atmosphere was
not present in majority of DIETs and (iii) the quality of in-service and pre-service training programmes provided by DIET was not satisfactory.

Shajoin (1996) conducted a study on the DIET training modalities and its impact on primary school teachers of Kerala. He found that there was no significant difference in the teacher effectiveness scores between the DIET and non-DIET trained teachers in Kerala.

Umadevi and Venkatramaiah (1996) tested the efficiency and attitude of rural elementary school teachers towards teaching. According to the study, the rural elementary teachers possessed high attitude towards teaching and they assumed teaching as a challenging job.

Das (1997) collected the Opinion of teacher trainees towards co-operating schools during internship in teaching programme. According to the teacher trainees, the heads and teachers of co-operating schools never perceive internship programme as an essential component of teacher education programme and hence attach little importance to this.

Srivastava, Sodha and Vashistha (1997) opined that the training programme is not serious and professional but casual and liberal. At best one learns about education and does not acquire teaching ability to an adequate extent. Nobody fails in the practice teaching, which indicates the meagre importance given to it. The nature of teacher education has to change from the present predominantly liberal one to highly professional one.

Ernst (1997) in his comparative study of teaching effectiveness of student teachers and first year teachers defined teaching effectiveness by four criteria - teaching process, curriculum, learner and the profession. Significant differences in teaching effectiveness were found for three of the four criteria - the teaching process, learners and curriculum. No significant difference was
found between student teachers' and first year teachers' satisfaction based on the student teaching and first year teaching experiences.

Zeichner (1997) studied Teacher Induction Practice in the United States and Great Britain. According to the study, the good induction programme should include, additional release time for the beginning teachers, school-based support form a colleague acting as a mentor or professional tutor who also receives some additional release time plus initial and continuing training, planned and systematic school-based activities including classroom observation and support, planned and systematic externally based activities organized by education authorities and college personnel, and the explicit and active support of school principals and administrators.

Biddulph (1998) in his study on Peer and self-assessment in teacher education, investigated assessment of student teachers is an area that has received little attention from researchers. This is somewhat surprising because student teachers own experiences of assessment are likely to be powerful influences on how they assess children’s work in their own classrooms. The use of summative self and peer assessment in a final year curriculum development course on science, mathematics, and technology education were employed. The student teachers found generous than were the lectures in peer assessment possibly because of the high stakes nature of summative assessment, and the desire for high marks.

Chakrabarti (1998) stated that Teacher Education in India had opened out new dimensions in qualitative change that believes in international co-operation to preserve and promote the aesthetic and cultural heritage of mankind, while emphasizing Qualitative Teacher Education. In order to give the world new perspectives on a new world order based on re-generation of
aesthetic consciousness, the curriculum-orientation programmes were, therefore, vigorously implemented.

Timperley et al. (1999) found that skills needed to promote reflective practice teaching can be attainable through training under certain conditions. For this purpose, they suggested a teacher training model with more practical teaching guidance than theories.

Turley and Nakai (1999) in their study of emergency permit teacher candidates and traditionally prepared student teachers in California. Objective of the study was to find out the perceptions of traditional student teachers and emergency permit teachers hold of their different ways of completing their professional preparation. They found that nearly all study respondents indicated that they were satisfied or very satisfied with their culminating field experience, and most said they would train as teachers in the same way again. Emergency permit teachers interested in the financial rewards of having a teaching job, the opportunity to learn through experience, and the independence of being a teacher of record. Most of them expressed, their confidence in readiness for the classroom. The respondents also pointed out about the heavy workload, lack of close mentoring, lack of opportunities to observe other teachers, and the stress of full-time teaching.

Govinda and Sood (2000) performed a national evaluation of DIETs. The overall aim of the study was to find out the available technical and infrastructural capacity of DIETS in all states in the country for carrying out the assigned functions. The tool used to collect information was a questionnaire to know the status of (i) physical infrastructure (ii) technical and academic programmes and activities and (v) financial status. Out of seven branches envisioned in the DIET designed to carry out the expected functions, Planning and Management (P&M), Educational Technology and Work Experience branches were non-functional in most of the DIETs in the country.
Bloom and Davis (2001) in their article about supporting new teachers, described what they view as key components of New teacher support systems. First years of teaching were the most stressful years in the teaching profession. Need to build assignments with new teachers in mind. New teachers should be provided with curriculum guidance, support and orientation. They also describe the needs of creating a collegial school culture, supporting professional growth of new teachers and about setting clear expectations.

Russell and Chapman (2001) studied advantages of partnerships in education with working on short-term contracts in an initial teacher education programme. Most teachers are happy about the opportunities for reflection from the time at college as teacher educators. According to the teachers, they were able to re-examine their teaching and the relevance of theory in informing practice. The chances to visit classrooms and centres other than their own was seen to be professionally valuable and also focus on sound pedagogical practices. An increased awareness of equitable practices, willingness to experiment and be innovative are other benefits. Most of them felt that, they are now able to support the professional learning of student teachers better in their classrooms and centres.

Donaghy and McGee (2002) conducted seven case studies of teacher educator’s experiences in an e-education version of their institution’s Bachelor of Teaching degree. Teacher educators felt that the e-learning environment had challenged them to rethink their conventional approaches to teaching. They also found that the high motivation of on-line students was helping to strengthen their teaching skills.

Hattie (2003) found that in the last five years’ international research has identified the significant impact of teachers on the learning of children and
young people and it is because of teacher education is gaining new attention (Goodlad, 1999). He further states quality of teaching and learning have relationship with the quality of initial teacher education in New Zealand.

Haigh and Ward (2004) conducted series of studies that explored shared understandings and effectiveness of relationships and roles of practicum partners. Instead of relay too much on practicum to apply theoretical approaches, student teachers should take a critical and reflective approach to their developing practice.

Narang (2004) opined that, the quality of School Education largely depended on the quality of teachers. The quality of teachers depended on the quality of teacher education as teachers the products of teacher education institutions. He is concerned about the need for a sound programme of professional education of teachers for the qualitative improvement of school education. Thus, the quality of education largely depended upon the quality improvement of teacher education.

Pillai (2004) conducted a study on the impact of practicing schools on quality of teaching practice of teacher trainees. He found that the teaching practices of teacher trainees was not satisfactory in majority of the schools in Kanyakumari.

Pandey (2004) stated that NAAC, set up in 1994, had been given the responsibility to assess and accredit institutions of higher education. This involved preparation of self-study report by an institution, its validation by peers and final decision by the Council. Though assessment and accreditation was voluntary, the UGC had indicated that its development support to the institutions would be related to the outcome of assessment and accreditation. This might prove to be a positive re-enforcer to better performing quality
institutions. But most of the institutions in India did not even fulfil the basic requirements for the teacher education programme.

Deb (2004) opined that, it was imperative that teacher educators act in partnership with families, industry, voluntary agencies, people active in cultural life and teacher organizations. She also stressed that any change for quality improvement, visualized in the sphere of teacher education needed collaborative efforts from all, since the academic and social issues were interrelated and interdependent.

Singh (2004) stated that “for accreditation maximum marks were 100 and minimum marks were 55”, while discussing the role of NAAC and NCTE in quality improvement. If an institution got more than 55% of the overall score the accredited status on a nine-point scale might be A++, A+, A, B++, B+, B, C++, C+, C. The grade was also supplemented by a report by the team that highlighted the strengths and weaknesses of the institution under consideration. She also stressed out the need of a system to produce quality and the need of measuring quality of teacher education institutions.

Ovens (2004) identified, little purpose and direction of the practicum; poor supervision and feedback; little autonomy to make their own decisions; pressure to conform to the associate’s teaching style; working in poor quality programmes; increases in workload and time commitment; and the experience is too short, as the problems with practice teaching experienced by student teachers. Major findings are, practice teaching experiences need to be appropriately structured and associate teachers needs to have skills in facilitating student teacher learning by testing and challenging their beliefs and practices in a supportive, understanding, and collegial supervision environment.
Punia and Dhull (2005) stated that quality assurance in teacher education is very important for the total quality management mission of the system. Quality could be ensured by its application in all domains of stakeholders/customers with the main focus on primary customers i.e. learners. They recommended that equal attention should be paid to all domains of the system.

Vij (2005) discusses the poor-quality teacher education program and negative and undesirable attitudes and values of teachers. According to her, pressure of the number, the unscrupulous private managements, lack of financial support from the government, isolation of teacher education from mainstream of academic life and the existing pattern of evaluation system were some of the main factors responsible for poor quality.

Upadhyaya and Upadhyaya (2005) opined that, the concept of TQM (Total Quality Management) like business sector should be introduced in teacher education institutions institution certificate of ISO 9001 for quality management. The institutions should be monitored regularly by National Council for Teacher Education and UGC and their grant and affiliation should be decided by over viewing their standard, align with this the ISO 14001 for institution. Which created practical awareness regarding environmental education with including it as an optional subject.

Singh (2005) stated that the quality of Preservice and In-service Teacher Education Programs in our country deteriorated and that the professional commitment and overall competence of teachers left much to be desired. He stressed that unless and until the quality of teacher education programme was enhanced, the quality of school education could not be improved.
Ahmad and Siddiqui (2005) opined that for achieving the quality of secondary teacher education it seemed logical to reorganise the B.Ed. curriculum and to enhance the period of B.Ed. course to two academic sessions. They also suggested to inspect whether all the required training facilities were provided to the teacher trainees, an inspection committee is needed. This measure will help in preparation of well-equipped and qualified teachers.

Victoria Parliament Education and Training Committee (2005) rated practicum as the most valuable element and most effective means of developing practical teaching skills of any teacher education program. Teaching practicum will prepare pre-service teachers to teach curriculum of the practice teaching schools, for assessment, for administrative and reporting responsibilities and also for developing human relations dimensions required for developing relationships with students, colleagues and parents.

Smith and Lev-Ari (2005) investigated the place of practicum in pre-service teacher education based on what student teachers perceived were the important components of their teacher education programme for acquiring professional knowledge. The student teachers considered major contribution of content knowledge to their professional knowledge arose from the practicum experiences. Aspects such as class management; dealing with unexpected problems; developing a concept of self as an educator; application of practical knowledge; pedagogical knowledge; decision making during teaching; and beliefs in pupil ability were rated highly. Student teachers also opined practicum as an integral component with respect to both curriculum and pedagogical knowledge.

Yadav and Rehan (2006) identified that there is no relationship between teacher education and school curriculum since they worked in
isolation. The pre-service teacher education curriculum did not meet the needs and demands of students and teachers. Keeping in view the new thrust areas of the National Curriculum Framework for school (2005) teacher education curriculum needed to be revised and redesigned. They found that in our existing system, the teachers with general degree of B.Ed. had been teaching from elementary to senior secondary stages. Even at some places, they were teaching subjects which they had not studied at graduation and post-graduation levels. It resulted into many complicated problems like dropouts, absenteeism and low achievement among the children. He recommended that there was a need to evolve a policy, under which B.Ed. degree with stage wise specialization i.e. secondary and senior secondary and area wise specialization like special education, physical education, etc. should be planned.

Mathew (2006) suggested that the curriculum of teacher education should make all possible efforts to increase teacher’s awareness of global interdependence and should have a global perspective. Also, more emphasis should be given for practical work rather than theory.

Varghese (2006) in his study on strategies for planning, development and evaluation of the practical programmes other than practice teaching in colleges of teacher education reveals that the activities of working with community and SUPW are not given due importance in the secondary teacher education institutions in Kerala.

Vashishta, Pathak and Lal (2007) commented that the quality of pre-service and in service teacher education needs to be upgraded. They stressed upon the need to develop new models of teacher education to fashion it on more professional lines. They stressed on phasing out sub-standard institutions of teacher education. Need for Certain norms of accountability with incentives for good performance and disincentives for non-performance should be laid down. Specialized programmes like M.Sc.Ed. introduced by
NCERT (1974) should be given a practical shape for preparing teachers for +2 stage in subject areas like chemistry, physics, mathematics and life sciences in teacher training colleges. Commercialisation of teacher education should be checked by discouraging non-viable enrolments in teacher education programmes with apparently false certificates of teachers shown to be working in schools along with other fake certificates. Substantial funds should be made available for providing academic support to meritorious but poor teacher trainees.

Cooper (2007) describes ways that preservice teachers responded to community-based activities located in the home communities of their learners. Community and cultural immersion activities incorporated in teacher training programmes can help pre-service teachers to correct misperceptions about their learners and build relationship with them which potentially influence the achievement of learners.

Harris and Sass (2007) studied the effects of various types of education and training on the ability of teachers to promote student achievement. We address these issues by estimating models that include detailed measures of pre-service and in-service training, a rich set of time-varying covariates, and student, teacher, and school fixed effects. Our results suggest that only two of the forms of teacher training we study influence productivity. First, content-focused teacher professional development is positively associated with productivity in middle and high school math. Second, more experienced teachers appear more effective in teaching elementary math and reading and middle school math. There is no evidence that either pre-service (undergraduate) training or the scholastic aptitude of teachers influences their ability to increase student achievement.
Sanders, Dowson and Sinclair (2008) tried to compare theoretical conceptualisations in the literature and observed practices in the field, among associate teachers and their student teachers using case study methodology. Found that teachers do not have strong understanding of curriculum documents. It was noted that associate teachers gathered minimal data on which to focus their discussions with student teachers. The authors identified three necessary conditions for more educative interaction: time; associate teacher knowledge of the content and approaches of programmes of teacher education; and “a significant degree of cognitive organization” on the part of the teacher. The research also identified the difficulties that associate teachers have in juggling their multiple roles and recommended the need for explicit opportunities for associate teachers to perform their roles more effectively.

Clough, Berg and Olson (2009) in their article on promoting effective science teacher education proposed a decision-making framework for teaching to help beginning and experienced teachers make sense of education research, come to understand crucial teacher decisions, and how those decisions interact to affect student learning. The framework is useful for making apparent and managing the layers of complexity that exist in learning and teaching. The decision-making framework challenges simplistic notions of learning and teaching, and narrow the research-practice gap. The framework illustrates crucial and synergetic interactions for education research and teacher education efforts.

Khan (2009) in his paper examined the ICT curriculum in the teacher education programmes of Kerala in the context of globalization. He concluded the there is a lagging in using latest technological developments and identified the need of including ICT in entire curriculum. And also, identified that success of ICT integration largely depends on ICT integration skill of teacher educators.
Wilkins, Shin and Ainsworth (2009) studied the effects of peer feedback practices with elementary teacher trainees. Findings indicates that peer feedback enhances teacher preparation, provides opportunities for think reflectively and collaboratively, and given greater professional confidence. However, implementing peer feedback needs proper encourage and supervision from university.

Caceres, Chamoso and Azcarate (2010) analysed of the Revisions that Pre-Service Teachers of Mathematics Make of Their Own Project Included in Their Learning Portfolio. Use of learning portfolios are increasing. Except “activities”, all the other categories show significant difference. The training received during pre-service teacher education program have limited influence on the use of learning portfolio.

Cheng, Cheng and Tang (2010) studied theory-practice gap by investigating the inconsistencies between student teachers' best teaching strategies and their most commonly employed ones. They investigated the considerations that contribute to the inconsistencies in the student teachers' conceptions of teaching; and the enhancing factors of the teacher education programme which help to close the gap between the theory and practice of teaching. The findings revealed three main dimensions of consideration attributing to the inconsistencies in the conceptions of teaching: pre-training experience, teaching context and student needs. These considerations lead to expansive or constraining impacts on the student teachers' selections of teaching strategies. Influences from the teacher education programme that might close this gaps.

Hegender (2010) scrutinized the assessment of teacher knowledge by teacher educators visiting the student teachers at their school placements and their school mentors in student-teaching conferences. The findings show that
the assessment procedures are influenced by teacher educators' organization of the school visits and conferences. The organization of the school visits and conferences influences who the potential and actual assessors at the conferences can be and are. The assessed student teacher knowledge at the conferences is described as procedural knowledge in a knowledge-"in"-practice perspective, almost exclusively in the area of relational, emotional, and caring learning objectives and aspects of teaching activities. Propositional knowledge in a knowledge-"for"-practice perspective is hardly mentioned or assessed.

Mtika and Gates (2010) researched the capability of trainee teachers to implement learner-centred practice at one of the teacher education institutions in Malawi. The findings in the study indicate that appropriation and application of learner-centred education is constrained by various factors. These findings also indicate that progressive pedagogical notions aligned with social constructivism promoted in teacher education institutions have not resulted in widespread change in classroom practice. Teacher educators and policy makers need to be aware of this and examine relevant ways and possibly adaptations that can be reasonably made to ensure that secondary teaching appropriately benefits from the strength of learner-centred pedagogy.

Saltmarsh and Sutherland Smith (2010) in their paper on an empirical study of teacher education faculties in five Australian universities, and analyses excerpts from interviews about learning and teaching with teacher educators, educational designers and faculty management. The paper argues that understanding how teacher educators constitute learner and teacher subjectivities through their beliefs about and approaches to pedagogy is crucial to the future of online tertiary education. In particular, how teacher educators' attitudes toward and approaches to online learning and teaching are
predicated on their perceived subject positions as either "stimulating" or "simulating" particular kinds of learning interactions.

Al-Shammari (2012) conducted a study aims to find ways to improve learning outcomes in teacher education courses by using an Analysis Model for Learning Outcomes (AMLO). The results showed significant improvements in learning outcomes for the second group after curriculum modifications were implemented. The results also highlight the importance of analysing learning outcomes for quality improvement in teacher education.

Warren and Miller (2013) states that very few teachers entering disadvantaged contexts feel prepared academically or professionally to teach effectively. The study focuses on the impact of a model for professional learning using RPL. To ascertain the effectiveness, teachers were interviewed three times a year and students' pre-and post-test scores were also analysed. The results reveal that the quality of teaching is related to the establishment of quality resources and quality professional learning.

Gok (2013) conducted a quantitative, study on teacher education programs in turkey using Multinomial Probit and Ordered Probit model. Findings of the study revealed that while key academic stakeholders generally agreed on the importance of the Public View, the Management View and the Academic View, on their number one choice 75% considered the Academic View the most important. There was no significant difference between administrators and students, or between faculty and students.

Sibgatullina (2015) in his article mentioned contemporary technologies to improve the quality of teachers' education. Also, suggests informational and communicational technologies, remote technologies, e-learning, activity-based learning should contribute to the professional competence of teachers.
Iwata (2015) mentioned that complication of teacher education policy in Japan is rooted in a gap between an image of teachers, which is held by society as a whole, and includes various character traits and the reality of Japanese university education. On the other hand, the expansion of an "open system" and lack of nationwide standard are making individual universities that provide teacher education programs in Japan to "narrow down." The enforcement of the current approval system is deficient as a quality assurance measure, and therefore has many harmful effects. Accordingly, it is desirable to recognize the realities of teacher education and respect the independence of individual universities when considering teacher education reform in the future.

Tatto (2015) stated goal of current education reform is the redesign of education systems in pursuit of quality. Systems that consistently "come out on top" have excited much interest in uncovering the features that have contributed to their success; notably among these is the preparation of future teachers. Research on teacher education quality assurance processes has begun to provide evidence that common features shared by successful systems include the design of teacher education programmes around criteria such as that set by accreditation requirements, in part because they are intended to help shape programmes' intentions and approach, curriculum design, and outcomes. An important question for the field of teacher education is how to boost the research on diverse approaches' outcomes to improve programme design as indicated by successful practice, while taking into account the role of economic and socio-cultural factors in the process.

**Summary of related studies on quality of teacher education**

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>Cohan</td>
<td>After evaluation Teacher training programme of the women training college, Dayalbagh, reported that the theory syllabus was neither heavy nor superfluous.</td>
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</tbody>
</table>
Syllabus was most useful and necessary for the knowledge required for teaching.

<table>
<thead>
<tr>
<th>Year</th>
<th>Author/Commission</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963</td>
<td>Prashar</td>
<td>Recommended that theory should be coordinated with practice much more than it is done so far.</td>
</tr>
<tr>
<td>1964</td>
<td>Kothari education commission</td>
<td>Nothing was more important than securing a sufficient supply of high quality recruits to the teaching profession, providing them with the best possible professional preparation and creating satisfactory conditions of work in which they could be fully effective.</td>
</tr>
<tr>
<td>1966</td>
<td>Bhatt M.M.</td>
<td>Qualitative improvement in education was possible by preparing better teachers in training institutions.</td>
</tr>
<tr>
<td>1974</td>
<td>Ahluwalia</td>
<td>The nature of training programme provided by the different institutions made positive or negative change in mean attitude scores.</td>
</tr>
<tr>
<td>1976</td>
<td>Vashista</td>
<td>Student teachers trained in FIACS became more indirect in dealing with their students.</td>
</tr>
<tr>
<td>1979</td>
<td>Gupta</td>
<td>In-service teacher education courses to cope with the emerging curricular changes at the school level and subsequently at the teacher education level.</td>
</tr>
<tr>
<td>1980</td>
<td>Mann</td>
<td>Tried to analyse the contents of studies and literature on student teaching and other practical work and found that revealed that student-teaching was the weakest link in the teacher education programme at primary as well as secondary level.</td>
</tr>
<tr>
<td>1980</td>
<td>Mutha</td>
<td>The teacher effectiveness significantly predicted by set of personality variables in ascending order are submission, anxiety, marital adjustment, extroversion, neuroticism, job satisfaction and teaching attitude.</td>
</tr>
<tr>
<td>1980</td>
<td>Bhatnagar</td>
<td>Most of the studies during seventies are concentrated on micro teaching.</td>
</tr>
<tr>
<td>1980</td>
<td>Aggarwal</td>
<td>Desire to continue education, possibility of doing good to the country, fondness of teaching, security of job and parents wish fulfilment were the main motivational factors for student teachers in the order of priority.</td>
</tr>
<tr>
<td>1980</td>
<td>Goyal</td>
<td>Majority of the teacher educators were favourably inclined towards their profession and well satisfied in the job.</td>
</tr>
<tr>
<td>1981</td>
<td>SCERT</td>
<td>The study disclosed that, due to too much interference from deputy educational officers, headmasters were reluctant to send the teachers for in-service courses, and lot of paperwork was needed for attending in-service programmes.</td>
</tr>
<tr>
<td>Year</td>
<td>Author</td>
<td>Title</td>
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<tr>
<td>1981</td>
<td>Bhattacharjee</td>
<td>The study revealed that training for the integration of the four selected skills (introducing a lesson, fluency in questioning, increasing pupil participation, and using the blackboard) under the summative model integration had contributed to the teaching competence of the experimental group significantly in comparison with the control group.</td>
</tr>
<tr>
<td>1981</td>
<td>Shukla</td>
<td>Identified different skills for teaching mathematics and language</td>
</tr>
<tr>
<td>1982</td>
<td>Srivastava</td>
<td>There was no significant contribution of the programme in developing teaching aptitude among trainees. In the opinion of college principals and teacher-educators, the existing conditions and working of the programme were not good.</td>
</tr>
<tr>
<td>1982</td>
<td>Bhagoliwal</td>
<td>More effective teachers were characterized by a fairly higher level of differentiation and integration in their cognitive and perceptual functioning.</td>
</tr>
<tr>
<td>1982</td>
<td>Sinha</td>
<td>Majority of the colleges had inadequate staff, library, equipment’s and laboratory. Recent innovations in teacher education had not been incorporated into the system. In-service programmes were not carried on effectively and there was little attention paid to follow up programmes.</td>
</tr>
<tr>
<td>1982</td>
<td>Gupta</td>
<td>There was a significant relationship between the inputs-the quality of teacher educators, academic motivation, leadership style, organizational climate, teaching methods and physical facilities</td>
</tr>
<tr>
<td>1983</td>
<td>Gupta</td>
<td>Student teachers of high academic ability showed the desired effect on their teaching behaviour or teaching performance through simulated teaching.</td>
</tr>
<tr>
<td>1983</td>
<td>Joshi and kumar</td>
<td>The findings showed that the mean performance was significantly higher in case of the group where the number of skills, time duration and number of students gradually increased in the light of their teaching competency scores compared to the groups where all skills where taken together.</td>
</tr>
<tr>
<td>1983</td>
<td>Sidhu</td>
<td>Principals and teacher educators should be oriented in the new techniques of classroom interaction analysis, simulation, role playing and feedback.</td>
</tr>
<tr>
<td>1983</td>
<td>Valanad</td>
<td>Mean innovation proneness score was high for experienced teacher educators and those possessing post-graduation</td>
</tr>
<tr>
<td>1983</td>
<td>Hemambujam</td>
<td>Suggests that to improve the quality of teacher education</td>
</tr>
</tbody>
</table>
the cooperating colleges and schools should work in harmony, follow latest methods and compulsory residential programmes.

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>Bawa</td>
<td>Exposure to micro-teaching resulted in improvement of teaching competence.</td>
</tr>
<tr>
<td>1984</td>
<td>Chathley</td>
<td>Upon comparing bi, tetra and hexa-clustered strategies of integration of skills in terms of general teaching competence, Tetra clustered and hex clustered strategies more effective among physical science teacher trainees.</td>
</tr>
<tr>
<td>1984</td>
<td>Naik</td>
<td>Teacher training institutions may use either peer feedback or/and peer-cum-audio tape feedback during micro-teaching session, and instructional materials on various teaching skills should be developed.</td>
</tr>
<tr>
<td>1984</td>
<td>Natarajan</td>
<td>Teacher education programmes could be made more effective through a competency-based approach.</td>
</tr>
<tr>
<td>1984</td>
<td>Swami</td>
<td>A properly designed remedial course on the clarification and mastery of important concepts, principles and other generalisations in the subject can effectively remove the deficiencies.</td>
</tr>
<tr>
<td>1984</td>
<td>Syag</td>
<td>The micro-teaching approach should be made on integral part of the student teaching programme.</td>
</tr>
<tr>
<td>1984</td>
<td>Teprongtong</td>
<td>The school principals and co-operating teachers were more concerned with the practical aspect of student teaching than the academic one.</td>
</tr>
<tr>
<td>1985</td>
<td>Haddad</td>
<td>The educational qualification and experience of teachers are some of the indicators for the quality of teachers.</td>
</tr>
<tr>
<td>1985</td>
<td>Deo</td>
<td>Major obstacles for practical programmes are lack of time, lack of proper guidance, lack of sufficient opportunities and lack of feedback from the teachers are the main obstacle.</td>
</tr>
<tr>
<td>1986</td>
<td>Shah</td>
<td>The study revealed that most of the institutions doesn’t pay much attention to the content of the lesson. Increase the competence of trainees to teach on the basis of accepted principles of learning and teaching was favoured by majority of institutions.</td>
</tr>
<tr>
<td>1986</td>
<td>Passi and Singh</td>
<td>Developed a training strategy for training teacher educators in models of teaching.</td>
</tr>
<tr>
<td>1986</td>
<td>Dogra</td>
<td>Due to training in concept attainment strategy there is a significant increase in defining, concrete examples, negative examples, amplification and vivid categories.</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Findings</td>
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<tr>
<td>1986</td>
<td>Kalyanpurkar</td>
<td>Showed that micro-teaching treatment had a positive significant effect on the development of skills like probing questions, reinforcement, explaining with examples and stimulus variation.</td>
</tr>
<tr>
<td>1986</td>
<td>Oak</td>
<td>While training the science student teachers, activities such as teacher talk, questioning and demonstration should be taken into account in preferential order.</td>
</tr>
<tr>
<td>1987</td>
<td>Ekbote</td>
<td>Developed a strategy for integration of skills in teacher training.</td>
</tr>
<tr>
<td>1988</td>
<td>Brousseau</td>
<td>Teacher efficiency was more likely to increase during the period of pre-service training</td>
</tr>
<tr>
<td>1989</td>
<td>Chaudhury</td>
<td>This study recommended the use of concept attainment model instead of spending much time on the micro-teaching technique to develop teaching skills.</td>
</tr>
<tr>
<td>1989</td>
<td>Kahlon and Saini</td>
<td>Teacher education helps to develop teaching aptitude and the academic achievement has low positive correlation with teaching aptitude</td>
</tr>
<tr>
<td>1990</td>
<td>Wong</td>
<td>Comparisons of perceptions of competence and control in their teaching performance before and after teaching practice indicate the consistence of casual attribution of teaching.</td>
</tr>
<tr>
<td>1992</td>
<td>Bhosale</td>
<td>Majority of principals, teacher educators and teacher trainees possessed the opinion that the new curriculum was suitable for developing teaching competence among the teacher trainees</td>
</tr>
<tr>
<td>1992</td>
<td>Das</td>
<td>Impact of curriculum on developing a proper attitude towards teaching rather favourable for both rural and urban teachers.</td>
</tr>
<tr>
<td>1992</td>
<td>Kukerti</td>
<td>Study revealed that there was a significant correlation between the variable teaching success and teaching aptitude.</td>
</tr>
<tr>
<td>1992</td>
<td>Yadav</td>
<td>Teacher training had a significant influence on the self-concept, social maturity and attitude towards the teaching profession of student teachers.</td>
</tr>
<tr>
<td>1992</td>
<td>Mahajan</td>
<td>Concept attainment model was found to be superior to the groups taught by advance organizer model.</td>
</tr>
<tr>
<td>1992</td>
<td>Sharma</td>
<td>Teacher education system should be structured according to the emerging needs of the modern Indian society.</td>
</tr>
<tr>
<td>1992</td>
<td>Singh</td>
<td>The teaching effectiveness was significantly co-related with intelligence and attitude towards the teaching</td>
</tr>
<tr>
<td>Year</td>
<td>Author</td>
<td>Description</td>
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<tr>
<td>1995</td>
<td>Singh</td>
<td>Discussion method contributed more to the achievement of student teachers in comparison to the traditional method of teaching.</td>
</tr>
<tr>
<td>1995</td>
<td>Singh</td>
<td>The educationists in the country were greatly concerned with the continued deterioration in the quality of teacher education.</td>
</tr>
<tr>
<td>1996</td>
<td>Gafoor</td>
<td>The quality of in-service and pre-service training programmes provided by DIET was not satisfactory.</td>
</tr>
<tr>
<td>1996</td>
<td>Shajoin</td>
<td>There was no significant difference in the teacher effectiveness scores between the diet and non-diet trained teachers in Kerala.</td>
</tr>
<tr>
<td>1996</td>
<td>Umadevi and Venkatramaiah</td>
<td>The rural elementary teachers possessed high attitude towards teaching and they assumed teaching as a challenging job.</td>
</tr>
<tr>
<td>1997</td>
<td>Das</td>
<td>Heads and teachers of co-operating schools never perceive internship programme as an essential component of teacher education programme and hence attach little importance to this.</td>
</tr>
<tr>
<td>1997</td>
<td>Srivastava</td>
<td>The nature of teacher education has to change from the present predominantly liberal one to highly professional one.</td>
</tr>
<tr>
<td>1997</td>
<td>Ernst</td>
<td>No significant difference was found between student teachers' and first year teachers' satisfaction based on the student teaching and first year teaching experiences.</td>
</tr>
<tr>
<td>1997</td>
<td>Zeichner</td>
<td>According to the study, the good induction programme should include, additional release time for the beginning teachers, school-based support form a colleague acting as a mentor and explicit and active support of school principals and administrators.</td>
</tr>
<tr>
<td>1998</td>
<td>Biddulph</td>
<td>Student teachers own experiences of assessment are likely to be powerful influences on how they assess children’s work in their own classrooms</td>
</tr>
<tr>
<td>1998</td>
<td>Chakrabarti</td>
<td>Teacher education in India had opened out new dimensions in qualitative change.</td>
</tr>
<tr>
<td>1999</td>
<td>Timperley</td>
<td>Skills needed to promote reflective practice teaching can be attainable through training under certain conditions.</td>
</tr>
<tr>
<td>1999</td>
<td>Turley and Nakai</td>
<td>Traditional student teachers and emergency permit teachers hold of their different ways of completing their professional preparation.</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Citation</td>
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<tr>
<td>2000</td>
<td>Govinda and sood</td>
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<td>2001</td>
<td>Bloom and davis</td>
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<td>2001</td>
<td>Russell and chapman</td>
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<tr>
<td>2002</td>
<td>Donaghy and mcgee</td>
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<td>2003</td>
<td>Hattie</td>
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<td>2004</td>
<td>Haigh and ward</td>
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<td>2004</td>
<td>Narang</td>
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<td>2004</td>
<td>Pillai</td>
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<td>2004</td>
<td>Pandey</td>
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<td>2004</td>
<td>Deb</td>
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<td>2004</td>
<td>Singh</td>
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<td>2004</td>
<td>Ovens</td>
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<td>2005</td>
<td>Punia and dhull</td>
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<td>2005</td>
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</tbody>
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stream of academic life and the existing pattern of evaluation system were some of the main factors responsible for poor quality.

<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>2005</td>
<td>Upadhyaya and Upadhyaya</td>
<td>The concept of TQM (total quality management) like business sector should be introduced in teacher education institutions</td>
</tr>
<tr>
<td>2005</td>
<td>Singh</td>
<td>He stressed that unless and until the quality of teacher education programme was enhanced, the quality of school education could not be improved.</td>
</tr>
<tr>
<td>2005</td>
<td>Ahmad and Siddiqui</td>
<td>For achieving the quality of secondary teacher education it seemed logical to reorganize the B.Ed. Curriculum and to enhance the period of B.Ed. Course to two academic sessions.</td>
</tr>
<tr>
<td>2005</td>
<td>Education and training committee</td>
<td>Practicum as the most valuable element and most effective means of developing practical teaching skills of any teacher education program.</td>
</tr>
<tr>
<td>2005</td>
<td>Smith and lev-ari</td>
<td>Student teachers opined practicum as an integral component with respect to both curriculum and pedagogical knowledge</td>
</tr>
<tr>
<td>2006</td>
<td>Yadav and rehan</td>
<td>The pre-service teacher education curriculum did not meet the needs and demands of students and teachers</td>
</tr>
<tr>
<td>2006</td>
<td>Mathew</td>
<td>Curriculum of teacher education should make all possible efforts to increase teacher’s awareness of global interdependence and should have a global perspective.</td>
</tr>
<tr>
<td>2006</td>
<td>Varghese</td>
<td>The activities of working with community and SUPW are not given due importance in the secondary teacher education institutions in Kerala.</td>
</tr>
<tr>
<td>2007</td>
<td>Vashishta, pathak and lal</td>
<td>To develop new models of teacher education to fashion it on more professional lines</td>
</tr>
<tr>
<td>2007</td>
<td>Cooper</td>
<td>Community and cultural immersion activities incorporated in teacher training programmes can help pre-service teachers to correct misperceptions about their learner</td>
</tr>
<tr>
<td>2007</td>
<td>Harris and Sass</td>
<td>There is no evidence that either pre-service (undergraduate) training or the scholastic aptitude of teachers influences their ability to increase student achievement.</td>
</tr>
<tr>
<td>2008</td>
<td>Sanders, dowson and sinclair</td>
<td>Teachers do not have strong understanding of curriculum documents.</td>
</tr>
<tr>
<td>2009</td>
<td>Clough, berg</td>
<td>Education proposed a decision-making framework for</td>
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</tbody>
</table>
and Olson teaching to help beginning and experienced teachers make sense of education research, come to understand crucial teacher decisions, and how those decisions interact to affect student learning.

<table>
<thead>
<tr>
<th>Year</th>
<th>Author(s)</th>
<th>Summary</th>
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<tbody>
<tr>
<td>2009</td>
<td>Khan</td>
<td>Identified that success of ICT integration largely depends on ICT integration skill of teacher educators</td>
</tr>
<tr>
<td>2009</td>
<td>Wilkins</td>
<td>Peer feedback enhances teacher preparation, provides opportunities for think reflectively and collaboratively, and given greater professional confidence</td>
</tr>
<tr>
<td>2010</td>
<td>Caceres, Chamoso and Azcarate</td>
<td>The training received during pre-service teacher education program have limited influence on the use of learning portfolio.</td>
</tr>
<tr>
<td>2010</td>
<td>Cheng, Cheng and Tang</td>
<td>Influences from the teacher education programme that might close this gaps like expansive or constraining impacts on the student teachers' selections of teaching strategies and the inconsistencies in the conceptions of teaching: pre-training experience, teaching context and student needs.</td>
</tr>
<tr>
<td>2010</td>
<td>Hegender</td>
<td>The assessment procedures are influenced by teacher educators' organization of the school visits and conferences.</td>
</tr>
<tr>
<td>2010</td>
<td>Mtika and Gates</td>
<td>Progressive pedagogical notions aligned with social constructivism promoted in teacher education institutions have not resulted in widespread change in classroom practice</td>
</tr>
<tr>
<td>2010</td>
<td>Saltmarsh and Sutherland-Smith</td>
<td>Argues that understanding how teacher educators constitute learner and teacher subjectivities through their beliefs about and approaches to pedagogy is crucial to the future of online tertiary education.</td>
</tr>
<tr>
<td>2012</td>
<td>Al-shammari</td>
<td>Highlighted the importance of analysing learning outcomes for quality improvement in teacher education.</td>
</tr>
<tr>
<td>2013</td>
<td>Warren and Miller</td>
<td>The quality of teaching is related to the establishment of quality resources and quality professional learning.</td>
</tr>
<tr>
<td>2013</td>
<td>Gok</td>
<td>There was no significant difference between administrators and students, or between faculty and students</td>
</tr>
<tr>
<td>2015</td>
<td>Sibgatullina</td>
<td>Suggested contemporary technologies to improve the quality of teachers' education</td>
</tr>
<tr>
<td>2015</td>
<td>Iwata</td>
<td>It is desirable to recognize the realities of teacher education in Japan and respect the independence of individual universities when considering teacher education</td>
</tr>
</tbody>
</table>
An important question for the field of teacher education is how to boost the research on diverse approaches' outcomes to improve programme design as indicated by successful practice, while taking into account the role of economic and socio-cultural factors in the process.

Reviews on challenges of teacher education

Chopra (1964) made a critical appraisal of post graduate teacher training program keeping in mind the present day needs of the schools in Punjab. For this he collected opinions of the headmasters, inspectors, lecturers of training colleges, school teachers and pupil teachers. he recommended that, all colleges should follow the rules streamlined with rules and regulations made by the universities. The B.Ed. Curriculum should lay more emphasis on educational and vocational guidance, educational psychology and subject matter orientation of school level. Practical training should be imparted to secondary teacher trainees in school registration and accounts, state education Code, audio visual aids, co-curricular activities, school librarianship and action research. As per recommendations of NCTE, teaching practice should be made more realistic and it should be supervised with the help of senior teachers and headmasters of the practicing schools.

Maddox (1978) conducted a descriptive study of practise teaching in North Wales. The findings of the study revealed that there was no proper supervision of practice teaching and. Innovations of teaching practice were not effectively communicated to student teachers.

Bhagia (1975) studied the nature of innovations made in school and training colleges, and found out whether the problem of diffusion and implementation was associated with the institutional variables. Also, observed that the teachers were not having a clear picture of their role performance and
the objectives of the various innovations. Teachers needed help from various sources in acquiring the techniques and behavioural skills required to confirm to the expected specifications.

Bhatnagar (1979) studied about institutional climates of teacher training institutions in Uttar Pradesh were characterized by high level of hindrance factors – authoritarianism, high academic emphasis, low level of discipline and control and lack of facilities.

Yadav (1980) conducted a critical study of teacher education in the state of Haryana and found that that sixty percent of the colleges of education in Haryana were not conscious about the social objectives of teacher education. According to his study the enrolment at B.Ed. level in Haryana was very high but at the time of admission no weightage was given to teaching experience and professional qualifications. He mentioned that no significant relationship was found between socio-economic status and the level of motivation that prompted the pupil teachers to pursue the B.Ed. course.

Mohan (1980) carried out an investigation about the effectiveness of teacher training programme in the colleges affiliated to Avadh University, Faizabad. The sample for the study included all the ten teacher training departments in the colleges affiliated to Avadh University. Data were collected with the help of questionnaires from forty-five secondary school teachers, 929 teachers-trainees sixty-four teacher-educators ten heads of the teacher training departments and two principals.

The findings of the were: Teacher training departments lack adequate buildings or equipment. None of them had hostels for girl students. The hostel facilities for boys were not satisfactory. Quite a few teacher-educators were not adequately qualified to supervise teaching practice in the subject in which
they were supervision the lesson. None of the teacher training departments had provision for extension service. The process of admission was too lengthy and took more two months for completion. The duration of the training course had become very short covered only 118 working days. None of the training departments had their own practicing school. The time spent on practice in teaching was too short as school were not available for a longer time. The examination for the practice-in-teaching had become a farce as the examination did not observe the lessons for adequate time. The majority of the respondents were not satisfied with the efficiency of the Training programmes

Gupta (1980) surveyed education of teachers in colleges of education. These national surveys were accompanied by the surveys of teacher education at the state level also. All his surveys reveal a dismal picture of teacher education so far as its qualitative aspects were concerned. Shortage of adequately trained staff and absence of adequate facilities were the predominant findings. The reasons for downward quality could be attributed to compromising with norms and dilution of academic standards.

Dubey (1981) had noticed that low salary of teacher educators prevented them from subscribing to journals and inadequate library stock in most of the colleges prevented them from keeping themselves up-to-date which affected the quality of teacher education. The lower quality was further aggravated by stagnation of teacher educators, late admissions and under emphasis given to the field work during the teacher training course.

Gupta (1985) carried out a study of the status of administrative procedures and problem of secondary teachers Training colleges with the objective of identify problems of administration, appointment procedures of faculty, organisation of teacher training program and the selection procedures
for trainees in the state of Maharashtra. The data were collected using a questionnaire on various aspects of administration of colleges of education and an interview schedule for their principals. Discussions with staff members and nonteaching staff were conducted in order to get the infrastructural information. The results revealed that, all colleges of education followed rules for selection of teachers as laid down by the UGC. Office organization and procedures were not satisfactory and poor administrative procedures and practices followed in the organization of the teacher education programme. The selection procedure of teacher trainees was similar in all the colleges of education. Poor standards of colleges of education resulted from poor infrastructural facilities. Co-curricular activities expected for preparing effective teachers, were not arranged so well in many of the colleges. objective and standardized evaluation methods were not used in most of the colleges of education to assess student teachers in many practical activities and skills. In most of the colleges relations between staff members and the principal were pleasant. For the administrative problems, while executing the teacher education programme, were similar in Government, University and private colleges.

Sindhe (1985) conducted study on the problems associated with the implementation of SUPW programme. The findings of the study reveal that the problems involved in the planning and preparation were centred on motivation, selection and organization. He mentioned the major problems are the large number of students in the classroom, lack of ability of teachers to integrate the other subjects with SUPW, the tendency to equate it with child labour, apathy of the community and non-availability of funds were the main problems hindering its proper implementation

Bordoloi (1990) in his study related on teacher education curriculum and different aspects of teacher education in Assam such as backlog of
untrained lower primary teachers, practice teaching and evaluation procedures. The findings of the study proclaimed that physical and educational facilities in teacher education institutions are not satisfactory. Organization and evaluation of practice teaching were not scientific, and Supervision of practice teaching was not satisfactory.

Roy (1991) in his study on Impact of elementary teacher education programme on attitudinal changes of elementary teacher trainees of Orissa noticed that the elementary teacher education programme with the elements of community involvement, both in theory and practice, positively affected the change in attitude of the student teachers of Orissa towards community involvement.

Nagpure (1991) in the critical study of elementary teacher education in Maharashtra, mentioned that the average expenditure per private unaided college of education was rupees 2.38 lakh, which was one third of the expenditure per private aided college. Innovative methods like team teaching and models of teaching were rarely tried out in colleges of education. Moreover 30% colleges of education ran centres for vocational guidance, adult education, population education and distance education. A majority of the students admitted that they had no teaching experience.

Chattopadhyay (1995) in his survey on teacher education colleges in west Bengal Discusses the results of a survey of student users of teacher training college libraries in West Bengal conducted during 1990-1 by Examines the differences in borrowing patterns between students of government and non-government teacher training colleges and analyses their responses. He found that the status and use of the teacher education college libraries in West Bengal were, in almost all their aspects, in unsatisfactory condition.
Kamath (1995) investigated in to the use of audio visual aids in the teacher training institutes of Kerala and he found that the facilities for the use of audio-visual aids were not satisfactory in the TTIs of Kerala and most of the teachers were reluctant to use them in their teaching.

Shukla (1995) carried out a comparative study of state level selection procedure of prospective teachers for Bachelor of Education in Rajasthan and Madhya Pradesh. He mentioned that the state level selection procedure for secondary teacher education programme in Rajasthan and Madhya Pradesh was an appropriate step according to the prospective teachers.

Raina (1995) in his study made his view about the need for enhancing the professional motivation and inspiration for becoming teachers. He found that professional status of teachers in India was considered low vis-a-vis other professions. Teacher education could not distinctly establish the need for its essentiality as was the case for professions like law, medicine and engineering. He stressed the need for strong professional motivation was seen among the “would be teachers”.

Singh and Mishra (1996) opined that the ability of the staff to create and maintain a given ethos might decrease and regimentation or bureaucratization might increase when the number of candidates and staff increased. General impressions suggested that the larger a teacher education setting was, the more the ethos resembled a ‘cafeteria’ rather than a dining room”. In the “cafeteria” the ethos was apt to be flat or lacking in either social or intellectual vitality. “Cafeteria” was seen, to be low on both affective and aesthetic considerations, whereas “dining rooms” maximized both these qualities.

Delors (1996) pointed out that in order to bring out in future teachers precisely those human and intellectual qualities that will facilitate a fresh
approach to teaching, rethinking of teacher education is necessary. They mentioned out that the importance of teachers in basic education and improving teacher’s qualifications are tasks which all governments must address themselves. The measures are needed to recruit future teachers from among the most motivated students. Thus, improving the quality and motivation of teachers must be a priority in all countries.

Geddis et al. (1998) conducted a study on Bridging theory and practice-towards a professional scholarship of pedagogy. The author pointed out that the present instructional strategies in teacher education seem more suited to transmission of subject matter as opposed to the transformation. the author mentioned about the need for transformation of teacher education

Transformation in teacher education

Hariram (2000) opined that, the inadequacies in the primary teacher education programmes in Kerala were related to admission procedures, curriculum, administration, infrastructure, evaluation procedure etc.

NCTE (2000) conducted a study about the teacher education in Kerala with objectives to explore and understand growth, development and present status of teacher education in Kerala at various levels. The study also aimed at identifying structure, mechanism of management, infrastructural facilities, strengths, problems, current issues, admission requirements, courses offered and modes of their transaction of teacher education. The study counted main problems of elementary teacher education as in-sufficient staff, supervision of academic activities is not taken seriously, infrastructural facilities are not utilized properly due to lack of experience or exposure, NCTE norms are not fulfilled in certain aspects and Lack of modern laboratory equipment. Transfer of teachers according to requirements, qualifications, and experience is necessary.
Vyas (2001) in his paper mentioned out that present teacher education system came under severe criticism from various sections of society for not giving due importance to practical experience to produce quality teachers. He further noticed there was a belief in the society and among teachers that teaching was an art or craft and not a science. There was a mentality that successful teaching was a practical skill and such skill did not come through the study of principles of education.

Nagpal (2001) studied about school experience programme of elementary teacher education. He observed that the major defects of school’s experience programme lack of continuous, objective and integrated assessment of trainees, inadequate cooperation and support from practicing schools, inadequate minimum required infrastructural facilities in the cooperating schools and poor perception of student teachers towards teacher educators and teaching profession.

Jayapalan (2001) pointed out that one of the major challenges of teacher education was that the profession of teaching failed to attract the better kind of people and only those who were unable to find jobs elsewhere, come to teaching.

Mohanty (2002) in a study investigated the course motive of boys and girls for joining teacher education course arrived at the finding that many boys and girls joined teacher training because during the period they could continue to enjoy student concession to attend interviews etc. for various other types of jobs. Where as many girls joined teacher training for matrimonial purposes

NCTE (2003) on Contextual Reorientation of Elementary Teacher Education, NCTE used an Information Schedule and Questionnaire for DIETs
to collect data. It was found that DIET Programmes were not suitably oriented to contextual or local needs of tribal, hilly and rural areas.

Mathew (2002) carried out a survey on the opinions of teacher educators regarding the implementation of the NCTE norms in the teacher training institutions. The result of the study revealed that the workload was too heavy for the teacher educators in the primary teacher training institutes in Kerala. The teacher educators suggested that the number of students’ assignments to be reduced.

Vijayakumariamamma (2002) carried out a study on history and problems of teacher preparation programme in Kerala. The study throws light to the historical development of teacher preparation programmes and the current issues in the teacher education system in Kerala.

Singh (2003) in his paper, towards a new look at Teacher Education in India” had studied various crises faced by the Indian teacher education in several fronts. The author had reported that the phenomena of attracting only average or below average men and women by teacher education, because of poor salary scales of teachers, to some extent is almost universal. He further added that “while culture can be thought of as a source of stability in organizations in many ways, we in India find that in terms of learning cultures students and teachers reflect a good deal of divergence”. The author quoted a study by Professor Wayne J. Urban of Georgia State University to conclude that: “Teacher education has always depended on market forces which govern its supply and demand. Teacher education students come from more ordinary social class backgrounds than university students”. There is a view that gender and class have seriously affected teacher education programmes. Reform in teacher education is dependent on the reforms in the occupation of teaching.
Patil (2003) in her study mentioned about the pathetic condition of libraries in the colleges of education. He found that Rural Colleges of Education usually had ill stocked libraries. He noticed the absence of Dictionaries, encyclopaedias, hand books and much of the standard reference volumes, adequate number of international and national periodicals. This has affected the quality of academic work in teacher education institutions.

Nair (2003) tried to reveal the problems and prospects of secondary teacher education in Kerala. He observed that the selection procedure of student teachers and the procedure for appointment of teacher educators were found defective which will lead to the deterioration of quality of teacher education. He observed that there is a need for lengthening of the duration of the course.

Nair (2003) conducted a study of the problems of experienced by student teachers at primary level. He observed that the student teachers of primary teacher education institutions face numerous problems regarding teaching practice, curriculum, availability of time, library and laboratory facilities and co-curriculum activities.

Deng (2004) in his article attempts to purports to underscore the need for a broader vision of teacher preparation, and argues for the central role of theory in the education of teachers by identify the limitations inherent in the model of teacher preparation as training within the context of current educational reforms in Singapore. Through clarifying the distinction between training and education, this article argues that two largely overlooked aspects of teacher education—one concerning transforming the beliefs of pre-service teachers, and the other concerning initiating teachers into a wider context of worthwhile perspectives and understanding—are highly desirable, if pre-service teachers are to teach the new ways and to become well-informed and morally-sensitive professionals.
Karpati (2004) explained that the major hurdle for the dissemination of information and communication technology based educational methods in Hungary, is the inadequate teacher ICT competency. He suggested the major educational objective should be to train teachers of different disciplines, to use computers in their preparation and daily teaching practice.

Singh (2004) with regard to quality impact in teacher education made his view that teacher education was being throttled in the hands of NCTE, NAAC and ASCs. Instead of bringing about quality impact, these institutions and State Government orders added to deterioration of standards in teacher education.

Edwards (2005) examines the implementation of primary teacher education programme of Malawi and points out the lack of support of teachers and other community factors. It then seeks to show that, in order to achieve qualitative as well as quantitative success, teachers and other community actors must be involved right from the planning stages and supported throughout the implementation of such programmes.

Joshi (2005) in his paper Challenges to Teacher Education in 21st Century revealed that mushroom growth of private B.Ed. institutions had created a formidable problem. He pointed out that by neglecting the important aspect of providing quality training to the prospective teachers, these institutions are interested in earning money only.

Sungoh (2005) opined that the major quality issues in teacher education are found to be defective selection procedure, lesser duration of training, lack of adequate opportunities to develop teaching competencies, absence of professional attitude and imbalance between demand and supply of teachers. These were the main factors which paves to the deterioration of quality of teacher education programme.
Taskin (2006) conducted a study on student teacher’s perceptions of the course of school experience in a teacher education programme in Turkey. The findings of the study revealed that although the current teacher education programme put emphasis on effective practical training, in some circumstances student teachers feel that their chances of gaining real teaching experiences are minimal.

Biswal (2006) mentioned about the major constraints that comes in the way of professionalization of teaching and teacher education. He observed that the process of selection to institutions of education and duration of training, the obsolete content and outdated methodology of training deteriorate professionalization of teaching today. He suggested that skills of the teachers can be enhanced through self-learning, in-service programmes, seminars, field trips etc.

Dash (2006) in the study pointed out that for Quality improvement in teacher education the curricula and contents of teacher education should be rewritten, and the methods of teaching-learning processes should be reinvented. He mentioned that these changes are inevitable to meet the challenges of the new millennium.

George (2006) carried out a study on the Use of modern instructional strategies: by student teachers at primary level comprising of government, aided and unaided teacher training institutes in Kottayam district of Kerala. The findings of the study revealed the fact that majority of these institutions are not equipped with satisfactory infrastructural facilities and instructional resources.

Singh and Singh (2007) in their study with regard to privatisation of teacher education observed that quality control was a major problem in teacher education. He observed neither the State Governments nor the
Universities tried to enforce the minimum standards required for teacher preparation. As a result, it was found that there were a large number of institutions which did not have the minimum necessary infrastructural and instructional facilities, teaching staff with appropriate qualifications etc. he made his recommendation that State Government, Universities and NCTE are accountable for quality control in teacher education. Most of the institutions were found to be under private management and some did not feel any accountability towards standard, they were busy in collecting huge capitation fees only.

Abdullah (2009) studied about different issues and problems related to growth of teacher education institutions. By analysing the secondary data of NCTE and found that among all Teacher Education Courses, a majority comprised of Elementary Teacher’s Training (ETT) and B.Ed. programmes. Except for pre-primary courses, where a marginal decrease was observed from 1995-96 to 2000-01, there had been a steady increase in number of all courses. It was also found that the most rapid expansion in number of courses recognized by the NCTE took place from 200001 to 2005-06. Further, it was found that the southern region has had the maximum number of Teacher Education Courses at all points of time whereas the eastern region has had minimum of such courses. The author found that conducive climate for privatization of education, increased demand for teacher education institutions, restricted growth of correspondence courses in teacher education, near stagnation in the growth of government institutions etc. were the major factors responsible for mushrooming of self-financing teacher education institutions.

NCERT (2009) conducted a comprehensive Evaluation of centrally sponsored scheme on Restructuring and Reorganization of Teacher Education. The study was undertaken for the comprehensive evaluation of the
implementation of Teacher Education Scheme to assess the technical and infrastructural capacity of DIETs, CTEs and IASEs in all states / UTs of India for carrying out the assigned functions. The objectives of the study included the availability, adequacy and utilization of physical infrastructure, staff; pre-service, in-service programmes, research, innovation, development and extension activities; adequacy and utilization of financial assistance (central and state); monitoring and evaluation procedures followed for ensuring efficiency and effectiveness of the institution and networking with national, regional, state, district and sub-district level institutions / organization involved in school education and teacher education. The method of the study was an evaluation survey using both the quantitative and qualitative techniques for collecting and analysing the data. The study found that in all the IASEs there was a shortage of both the academic and technical staff most of these institutions had received only a one-time grant, and after that no funds were received for the recurring expenditure. The post of librarian was not filled in nearly 32% of the sampled IASEs. Physical Education instructor was not appointed in more than 50% of the IASEs. In 50% of the sampled IASEs, less than 50% of the academic posts were filled. Around 68% of the IASEs did not have technical staff in position. Moreover, the function of instructional material development was also neglected by majority of IASEs.

Summary of related studies on challenges of teacher education

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td>Chopra</td>
<td>The B.Ed. Curriculum should lay more emphasis on educational and vocational guidance, educational psychology and subject matter orientation of school level</td>
</tr>
<tr>
<td>1968</td>
<td>Maddox</td>
<td>In north wales, there was no proper supervision of practice teaching. Innovations of teaching practice were not effectively communicated to student teachers.</td>
</tr>
<tr>
<td>Year</td>
<td>Author</td>
<td>Summary</td>
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<tr>
<td>------</td>
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</tr>
<tr>
<td>1975</td>
<td>Bhagia</td>
<td>Teachers needed help from various sources in acquiring the techniques and behavioural skills required to confirm to the expected specifications.</td>
</tr>
<tr>
<td>1979</td>
<td>Bhatnagar</td>
<td>Institutional climates of teacher training institutions in Uttar Pradesh were characterized by high level of hindrance factors – authoritarianism, high academic emphasis, low level of discipline and control and lack of facilities</td>
</tr>
<tr>
<td>1980</td>
<td>Yadav</td>
<td>No significant relationship was found between socio-economic status and the level of motivation that prompted the pupil teachers to pursue the B.Ed. Course.</td>
</tr>
<tr>
<td>1980</td>
<td>Mohan</td>
<td>The majority of the respondents were not satisfied with the efficiency of the training programmes</td>
</tr>
<tr>
<td>1980</td>
<td>Gupta</td>
<td>Shortage of adequately trained staff and absence of adequate facilities were the predominant findings.</td>
</tr>
<tr>
<td>1981</td>
<td>Dubey</td>
<td>The lower quality or teacher education institution is due to the stagnation of teacher educators, late admissions and under emphasis given to the field work during the teacher training course.</td>
</tr>
<tr>
<td>1985</td>
<td>Gupta</td>
<td>Poor standards of colleges of education resulted from poor infrastructural facilities. Co-curricular activities expected for preparing effective teachers, were not arranged so well in many of the colleges.</td>
</tr>
<tr>
<td>1985</td>
<td>Sindhe</td>
<td>Problems involved in the planning and preparation of SUPW were centred on motivation, selection and organization.</td>
</tr>
<tr>
<td>1990</td>
<td>Bordoloi</td>
<td>The study proclaimed that physical and educational facilities in teacher education institutions are not satisfactory.</td>
</tr>
<tr>
<td>1991</td>
<td>Roy</td>
<td>Elementary teacher education programme with the elements of community involvement, both in theory and practice, positively affected the change in attitude of the student teachers of Orissa</td>
</tr>
<tr>
<td>1991</td>
<td>Nagpure</td>
<td>In Maharashtra average expenditure per private unaided college of education was rupees 2.38 lakh,</td>
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which was one third of the expenditure per private aided college

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
<th>Source</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1995</td>
<td>Chattopadhyay</td>
<td>The status and use of the teacher education college libraries in west Bengal were, in almost all their aspects, in unsatisfactory condition.</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>Kamath</td>
<td>The facilities for the use of audio-visual aids were not satisfactory in the TTIs of Kerala and most of the teachers were reluctant to use them in their teaching.</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>Shukla</td>
<td>State level selection procedure for secondary teacher education programme in Rajasthan and Madhya Pradesh was an appropriate step according to the prospective teachers.</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>Raina</td>
<td>Professional status of teachers in India was considered low vis-a-vis other professions.</td>
<td></td>
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<tr>
<td>1996</td>
<td>Singh and Mishra</td>
<td>General impressions suggested that the larger a teacher education setting was, the more the ethos resembled a “cafeteria” rather than a „dining room”</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>Delors, et al</td>
<td>In order to bring out in future teachers precisely those human and intellectual qualities that will facilitate a fresh approach to teaching, rethinking of teacher education is necessary.</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>Geddis et al.</td>
<td>Mentioned about the need for transformation of teacher education</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>Hariram</td>
<td>Inadequacies in the primary teacher education programmes in Kerala were related to admission procedures, curriculum, administration, infrastructure, evaluation procedure etc.</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>NCTE</td>
<td>The study counted main problems of elementary teacher education as insufficient staff, supervision of academic activities is not taken seriously, infrastructural facilities are not utilized properly due to lack of experience or exposure, NCTE norms are not fulfilled in certain aspects and Lack of modern laboratory equipment.</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>Vyas</td>
<td>Present teacher education system came under severe criticism from various sections of society for not giving due importance to practical experience to produce</td>
<td></td>
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</tbody>
</table>
Quality teachers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Author</th>
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</tr>
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<tr>
<td>2001</td>
<td>Nagpal</td>
<td>The major defects of school’s experience programme were, lack of continuous, objective and integrated assessment of trainees, inadequate cooperation and support from practicing schools.</td>
</tr>
<tr>
<td>2001</td>
<td>Jayapalan</td>
<td>Profession of teaching failed to attract the better kind of people and only those who were unable to find jobs elsewhere, come to teaching.</td>
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<tr>
<td>2002</td>
<td>Mohanty</td>
<td>Many boys and girls joined teacher training because during the period they could continue to enjoy student concession to attend interviews etc. For various other types of jobs.</td>
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<td>2003</td>
<td>NCTE</td>
<td>DIET programmes were not suitably oriented to contextual or local needs of tribal, hilly and rural areas.</td>
</tr>
<tr>
<td>2002</td>
<td>P. P. Mathew</td>
<td>Workload was too heavy for the teacher educators in the primary teacher training institutes in Kerala.</td>
</tr>
<tr>
<td>2002</td>
<td>Vijayakumariammmma</td>
<td>Study throws light to the historical development of teacher preparation programmes and the current issues in the teacher education system in Kerala.</td>
</tr>
<tr>
<td>2003</td>
<td>Singh</td>
<td>The phenomena of attracting only average or below average men and women by teacher education, because of poor salary scales of teachers, to some extent is almost universal.</td>
</tr>
<tr>
<td>2003</td>
<td>Patil</td>
<td>Rural colleges of education usually had ill stocked libraries.</td>
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<tr>
<td>2003</td>
<td>K.S.V. Nair</td>
<td>The selection procedure of student teachers and the procedure for appointment of teacher educators were found defective which will lead to the deterioration of quality of teacher education.</td>
</tr>
<tr>
<td>2003</td>
<td>R.K. Nair</td>
<td>Student teachers of primary teacher education institutions face numerous problems regarding teaching practice, curriculum, availability of time, library and laboratory facilities and co-curriculum activities.</td>
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<tr>
<td>2004</td>
<td>Deng</td>
<td>Argues that two largely overlooked aspects of teacher education—one concerning transforming the beliefs of</td>
</tr>
<tr>
<td>Year</td>
<td>Author(s)</td>
<td>Summary</td>
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</tr>
<tr>
<td>2004</td>
<td>Karpati</td>
<td>In Hungary, major educational objective should be to train teachers of different disciplines, to use computers in their preparation and daily teaching practice.</td>
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<td>2004</td>
<td>Singh</td>
<td>Instead of bringing about quality impact, these institutions and state government orders added to deterioration of standards in teacher education.</td>
</tr>
<tr>
<td>2005</td>
<td>Edwards</td>
<td>Problems of primary teacher education programme of Malawi were the lack of support of teachers and other community factors.</td>
</tr>
<tr>
<td>2005</td>
<td>Joshi</td>
<td>Mushroom growth of private B.Ed. Institutions had created a formidable problem.</td>
</tr>
<tr>
<td>2005</td>
<td>Sungoh</td>
<td>Major quality issues in teacher education are found to be defective selection procedure, lesser duration of training, lack of adequate opportunities to develop teaching competencies, absence of professional attitude and imbalance between demand and supply of teachers.</td>
</tr>
<tr>
<td>2006</td>
<td>Taskin</td>
<td>Student teachers feel that their chances of gaining real teaching experiences are minimal.</td>
</tr>
<tr>
<td>2006</td>
<td>Biswal</td>
<td>Major constraints that come in the way of professionalization of teaching and teacher education. He observed that the process of selection to institutions of education and duration of training, the obsolete content and outdated methodology of training deteriorate professionalization of teaching are the major constraints.</td>
</tr>
<tr>
<td>2006</td>
<td>S. Dash</td>
<td>For quality improvement in teacher education the curricula and contents of teacher education should be rewritten, and the methods of teaching-learning processes should be reinvented.</td>
</tr>
<tr>
<td>2006</td>
<td>George</td>
<td>Majority of these institutions are not equipped with satisfactory infrastructural facilities and instructional resources.</td>
</tr>
<tr>
<td>2007</td>
<td>Singh and Singh</td>
<td>Quality control was a major problem in teacher education. He observed neither the state governments...</td>
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</tbody>
</table>
nor the universities tried to enforce the minimum standards required for teacher preparation

2009 Abdullah

Conducive climate for privatization of education, increased demand for teacher education institutions, restricted growth of correspondence courses in teacher education, near stagnation in the growth of government institutions etc. Were the major factors responsible for mushrooming of self-financing teacher education institutions.

2009 NCERT

In all the DIETs and IASEs, there was a shortage of both the academic and technical staff. Most of the IASE’s had received only a one-time grant, and after that no funds were received for the recurring expenditure.

**Review on expansion of teacher education**

Mukerji (1964) found that in 1948 the admission in teacher training institutes was 42,157 and in 1962–63 this enrolment increased to 2,17,027 out of which 23,398 was for B.Ed. course. It was also found that of the 243 secondary teacher training schools as many as 219 were affiliated to universities and only 24 were controlled completely by eight different State Departments of Education. It was also noted that the curriculum control of over half of the university affiliated teacher training colleges was in the hands of six universities (Agra, Calcutta, Gorakhpur, Kerala, Madras and Punjab) each of which had charge for ten or more teacher training colleges.

Taneja (1968) stated that, the training education institutions collected rupees 8 as monthly fee from the boys and rupees 4 from the girls. The trainees whose parent’s income was less than Rs. 3,000 per year were not necessary to pay any tuition fees, both in the Government as well as in the Private training schools. In case of Scheduled Castes, Scheduled Tribes and other Backward Classes, not only there was complete exclusion from the payment of fees, but there was a liberal provision for stipends and
scholarships from the Government also. He also talked about growth of teacher education in Panjab, In November 1947 a co-educational training college in Jalandhar and Woman Training College in Shimla were started. The number of training schools increased from 9 to 14, in 1950 there being 6 for men and 8 for women.

NCERT (1971) in third national Survey of Secondary Teacher Education in India commented that the number of Teacher Education Institutions in India was 219 in 1962 and increased to 273 in 1965 which further reached 381 in 1971. In 1968 increase in number of Institutions was maximum with 19 institutions were opened and in 1971 was minimum when only 2 institutions were started. At one stage, out of 259 institutions only 215 institutions were co-educational and rest were for women only, 35 institutions were fully residential and 147 were partly residential.

Srivastava and Bose (1978) felt that the Regional Colleges were set up to feed the multipurpose schools as recommended by the Secondary Education Commission and they began their programme and professional and general education well in time. It was also detected that the training institutions were still inadequate to meet the growing requirements as the usual programme of training colleges had little relation to the actual needs and problems of the schools, and that many teachers were incapable and unwilling to follow those methods on their return to schools.

Pathak (1979) conducted a survey to find out expansion and quality of teacher education in eastern Utter Pradesh. His major findings were Physical facilities and equipment’s were, by and large, quite inadequate in most institutions, there was a rapid increase in the number of teacher education institution from 16 to 33 from 1973 to 1978, most of the teacher educators were rural born high caste Hindu male and the quality of output was poor as far as educational theory and practice was concerned.
Dubey (1981) observed that in Madhya Pradesh the number of colleges of education increased from two in 1947 to fifty-one in 1978. 80% of these colleges were Government colleges whereas in Maharashtra only 27% were Government colleges and 61.5% Private colleges.


Babu (1990) discussed that there was varying expansion of teacher education during 1956-76. There was considerable increase in admission for elementary teacher training; the women trainees outnumbered the men in intake for teacher education at all levels.

Singh (1995) opined that there was a rising feeling that the teacher training courses were not effective in creating efficient teachers. He had given following reasons for it: Proliferation of institutions had increased tremendously. Further proliferation of B.Ed. through correspondences and part–time/vocation courses. The infrastructural facilities and teaching staff of training institutions were inadequate. Admissions were not made by taking into the consideration the available employment openings to the teachers of various categories. The courses of study were theory oriented and outdated and fails to meet the present-day needs.

Pillai (1997) shown that there were only 19 secondary teacher training colleges with an intake of around 4000 towards the end of the Eighties in Kerala. The universities centred the arena with the starting of training colleges of Teacher Education, with 300 students each. The three affiliating universities competed for opening more and more number of such B.Ed. colleges and the number of such colleges became 25 which catered to not less than 7500 trainees. In addition, during 1994-1995, 32 Teacher’s training
colleges were allowed with additional intake on an average of 100 seats. Most of these institutions were self-financing colleges. The Shree Sankara University of Sanskrit also started secondary teacher training programme in its regional centres. Thus, now the number of secondary teacher training seats available in Kerala became 25000.

Jayapalan (2001) found that, in the year 1802, there were 105 normal teacher training schools in the whole India and about 3,886 men and women were being taught in those schools. The annual expenses of these schools were nearly 4 lacs. In 1862, standard school system of teacher training was started in Bengal. Under this system the teachers of the native schools or their relations were sent to normal schools. In 1874 Campbell, the Governor of the province prepared a new scheme for the training of the teachers and consequently, 46 normal training schools were established at the cost of Rs.1,64,000. Eventually, the regular system of teacher education was started in accordance with the recommendations of the Indian Education Commission, 1882. Consequently, by the end of 19th century there were 6 training colleges (at Madras, Kursan, Rajmundri, Lahore, Allahabad, and Jabalpur) and 50 training schools in the whole country.

Jain (2004) in his Punjab Hand Book, presented that teacher education institutions in Punjab had expanded at a very slow rate up to 2001. The number of institutions of secondary teacher training increased only by six over thirty years i.e. from 17 in 1971 to 23 in 2001.

Singh (2005) commented that, India had been facing the challenge of paramount expansion of education system including teacher education. During 2002-03, there were about 5.5 million teachers in India. The admission in teacher education institutions was more than 2,00,000 every year and the number had gone too high. There were approximately 2000 teacher education institutions during 2000-03. The reason behind this fast rate expansion is because of privatization of teacher education. There were twelve types of teacher education courses being run in these institutions. Upto 2005,
around 180 teacher education institutions have been accredited by NAAC with the assigned grade ranging from C+ to A+. However, the teacher education institutions quality had suffered much with rapid expansion both in number and size.

Vij (2005) studied the quantitative expansion of colleges of secondary teacher education and found that from 1993 to 1997 no new institution was established. Whereas in the years 1998-2002 each year one college of teacher training was established in Punjab. But in the year, alone 2003 nine colleges of education were established in Punjab. Thus, increasing the total number from 18 in 1993 to 33 in 2003. Whereas at the national level this number increased from 710 in 1995-1996 to 1075 in 2003

Rastogi (2007) commented that from 1886 to 1894, only six teacher training colleges were set up to meet the need of required number of trained teachers. After independence in 1947, a phenomenal expansion of education took place including teacher education. At present, for giving teachers for a swiftly expanding school system, more than 2000 teachers training institutions were involved and over 2,00,000 students underwent pre-service teachers training every year.

**Summary of related studies on expansion of teacher education**

<table>
<thead>
<tr>
<th>Year</th>
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<tbody>
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<td>1964</td>
<td>Mukerji</td>
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<tr>
<td>1968</td>
<td>Taneja</td>
<td>In Punjab, the number of training schools increased from 9 to 14, in 1950 there being 6 for men and 8 for women.</td>
</tr>
<tr>
<td>1971</td>
<td>NCERT</td>
<td>The number of Teacher Education Institutions in India was 219 in 1962 and increased to 273 in 1965 which further reached 381 in 1971</td>
</tr>
<tr>
<td>1978</td>
<td>Srivastava and Bose</td>
<td>Training institutions were still inadequate to meet the growing requirements as the usual programme of training colleges had</td>
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</table>
little relation to the actual needs and problems of the schools,

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<tr>
<th>Year</th>
<th>Author</th>
<th>Citation</th>
<th>Description</th>
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<tbody>
<tr>
<td>1979</td>
<td>Pathak</td>
<td>[111]</td>
<td>There was a rapid increase in the number of teacher education institution from 16 to 33 from 1973 to 1978.</td>
</tr>
<tr>
<td>1981</td>
<td>Dubey</td>
<td>[130]</td>
<td>In Madhya Pradesh, the number of colleges of education increased from two in 1947 to fifty-one in 1978.</td>
</tr>
<tr>
<td>1990</td>
<td>Babu</td>
<td>[208]</td>
<td>There was varying expansion of teacher education during 1956-76. There was considerable increase in admission for elementary teacher training.</td>
</tr>
<tr>
<td>1995</td>
<td>Singh</td>
<td>[201]</td>
<td>Teacher training courses were not effective in creating efficient teachers.</td>
</tr>
<tr>
<td>1997</td>
<td>Pillai</td>
<td>[201]</td>
<td>There were only 19 secondary teacher training colleges with an intake of around 4000 towards the end of the Eighties in Kerala.</td>
</tr>
<tr>
<td>2001</td>
<td>Jayapalan</td>
<td>[201]</td>
<td>In the year 1802, there were 105 normal teacher training schools in the whole India and about 3,886 men and women were being taught in those schools.</td>
</tr>
<tr>
<td>2004</td>
<td>Jain</td>
<td>[201]</td>
<td>That teacher education institutions in Punjab had expanded at a very slow rate up to 2001.</td>
</tr>
<tr>
<td>2005</td>
<td>Singh</td>
<td>[201]</td>
<td>India had been facing the challenge of paramount expansion of education system including teacher education. The reason behind this fast rate expansion is because of privatization of teacher education.</td>
</tr>
<tr>
<td>2005</td>
<td>Vij</td>
<td>[201]</td>
<td>The quantitative expansion of colleges of secondary teacher education and found that from 1993 to 1997 no new institution was established.</td>
</tr>
<tr>
<td>2007</td>
<td>Rastogi</td>
<td>[201]</td>
<td>After independence in 1947, a phenomenal expansion of education took place including teacher education.</td>
</tr>
</tbody>
</table>
Conclusion

According to Aristotle’s famous quote “Well begun is half done”, the good quality education given at elementary level can fill many quality gaps identified by the globalised and liberalized market on the Indian human resource. But the review conducted by investigator identified the grave scarcity of studies in the field of elementary teacher education.

The review of related literature on the current topic conducted by the investigator bring light to the lack of researches in the fields of status, quality and expansion of elementary teacher education. Elementary education is the most crucial stage in education which creates a foundation for future growth of students and it develops positive attitudes in children towards the education. So, elementary teacher education requires special attention. After independence, India has grown in tremendous speed so it demanded high quantity of qualified human resource instead of concentrating on the quality. This attitude also reflected in teacher education and most of the developments happened in the teacher education to meet the number of teachers especially in secondary and for higher education. But now time has arrived to rethink on improving quality of education and teacher education.

In Kerala, the quality of elementary teacher education and hence elementary education is deteriorating year by year. There is no state level agency at present to evaluate the quality of elementary teacher education institutions. Above that, recent years too many private institutions also given permission to impart elementary teacher education, which further negatively impacted the quality of elementary teacher education. The researches conducted on elementary teacher education, all over India were very less. One of the main reason in neglecting elementary teacher education by researchers is that, the elementary teacher education is not managed by universities. Even though Kothari commission in 1964-1966 identified importance of bringing
elementary teacher education under higher education, very few steps are taken so far towards this.

In order to bring about the changes and to refine and update the existing system, it is necessary to evaluate it at first. The historical perspective and conceptual framework along with the review of related literature and the suggestions given by the other authors guided investigator towards present study. The present study aims at fulfilling those research gaps identified in the area of elementary teacher education from the review conducted. It focusses on status of the present elementary teacher education system in Kerala, and tries to identify its challenges. The study also explores the expansion of elementary teacher education in Kerala and to evaluate the quality of the current system.