

CHAPTER II

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2.1.0 INTRODUCTION

Review of earlier research findings provides an empirical framework to carry out further research. It gives a reflective thinking from the already available data. It helps to get insight of the problem through studying the past research work which already has been conducted, the present work which is going on and provides a direction that which type of work is required to be done in the future. It provides an orientation to the researcher regarding the types of the research that has been conducted in the field previously. It is necessary that the investigator is aware of the knowledge generated and ongoing process of knowledge generation for a better clarity of the problem and an insight into its methodological issues. For any investigator, review forms the basis for the problem under investigation and helps researcher to arrive at the proper perspective of the study.

This is an attempt to give a brief sketch of the researches carried out in the field of teacher education particularly related to the area under study. The sources used were Surveys of Researches in Education, Dissertation Abstracts International, Ph. D. thesis, Shodhganga on Infilbnet, Online Hansa Mehta Library, ERIC and other resources. In the present chapter the researcher has reviewed sixty seven studies and presented in a summarized form.

2.2.0 STUDIES CONDUCTED ABROAD

Following studies were found conducted abroad in the area of teacher education starting from the year 2004 till date.

Aljabber (2004) conducted a study to find out the attitude of Saudi Arabian secondary pre-service teachers towards teaching practices in science. The purpose of the study was to investigate the attitude of Saudi Arabian secondary pre-service science teachers towards a variety of science teaching practices. An ultimate essential goal of this study was to use generated information to improve current secondary science education program in Saudi Arabia. A questionnaire and four open-ended survey questions were used for the study. The major finding of the study was that students could not frequently implement the teaching

practices due to several factors like large number of students in classroom, classroom management issues, time demands and lack of necessary materials.

Erol Karaca (2008) surveyed teacher trainees' opinions about teaching profession knowledge courses in Turkey. Opinions of teacher trainees attending secondary school education programmes about teaching profession knowledge courses were investigated to determine whether or not their opinion differs according to their gender, type of teaching program, satisfaction in teaching program, general academic achievement, grade averages and willingness on being teacher. Data which were collected through the opinion scale about teaching profession knowledge course revealed that teacher trainees' opinion about teaching profession knowledge courses were positive and were significantly associated with type of teaching programme, their satisfaction in teaching programme and their willingness on being teacher. However, there were no significant relationships between the teacher trainees' opinion about teaching profession knowledge courses and other variables examined.

Ahmet Guneyli and Canan Aslan (2009) made an evaluation of Turkish prospective teachers' attitude towards teaching profession (near East University Case). The fundamental objective of this study was to determine the Turkish prospective teachers' attitude towards the teaching profession according to their gender, class and socio – economic levels, their reasons for choosing this profession, what the problems they may confront when they start the profession were and whether the education they received was sufficient. In order to evaluate prospective teachers' attitude towards teaching profession, 5point Likert - type attitude scale developed by Cetin in 2006 was used. No significant difference was observed in relation to the effects of class and socio – economic level. The majority of prospective teachers choose Turkish language teaching because they love the profession. A significant difference occurred in favour of female prospective teachers in relation to the gender factor.

Ellison (2009) conducted a study on confirmatory factor analysis of a measure of pre-service teacher's knowledge, skills and dispositions. The tool employed was The Student Teacher Assessment Rubric (STAR), which was an evaluation tool, designed specifically to be used with student teachers. The purpose of this study was to examine the underlying structure of the STAR using Confirmatory Factor Analysis (CFA). The data were divided into two data sets, with one data set used to examine the fit to the 10-factor model and the second data set

used to validate the model. Due to high correlation coefficients among the 10 latent variables, the model specification was changed to a one-factor model. The fit statistics from the CFA for the one-factor model suggested an adequate fit but the number of modifications needed to improve the fit suggested some problems. Implications for measuring complex knowledge and skills needed for effective teaching were discussed.

Ustuner et al (2009) made a study on the attitude of prospective teachers towards the profession of teaching. The instrument used to collect data in their study was the “Attitude scale towards the profession of teaching” a single dimension Likert type scale with 5 points originally developed by Ustuner (2006). Significant difference was observed between the attitude of prospective teachers with intrinsic motivation towards the profession of teaching and those of latter with extrinsic motivation towards the profession of teaching. Other variables for which significant difference were observed included gender, the type of the department, program in the university entrance examination preference list, and the socio – economic status (SES) of the neighbourhood and family they live in.

Demir (2016) did an analysis of Pre-service Teachers’ Attitude and opinions regarding the teaching profession via Q- Methodology, a reliable method that takes individual’s unique perspective to determine students’ opinion and perceptions. The study was carried out with the fourth year students (i.e. pre-service teachers) studying at a university located in the southern part of Turkey. Q-sort results indicated that majority of the pre-service teachers have positive attitudes towards teaching profession. Qualitative analyses indicated that they have both positive and negative perceptions.

2.3.0 STUDIES CONDUCTED IN INDIA

Following studies were found conducted in India the area of teacher education starting from the year 1952 till date.

Adaval (1952) conducted an investigation into the qualities of teachers under training. The research tools used were: Test of general knowledge, Test of mental ability and Test of aptitude for teaching by Moss, Hunt and Wallace. The conclusion was that there were very few people in training colleges who had an aptitude for the profession. It was further revealed that women trainees had greater aptitude for teaching than men.

Buch (1959) surveyed the attitude of teachers towards the profession. The result indicated that, in general, training had a favourable effect on the attitude of teachers towards their jobs, except when experience exceeds five years after training.

Shukla (1969) conducted a study on Teacher Education for tomorrow's needs. As a part of the study, the requirements for the years 1969-74 were estimated. A questionnaire, an interview and a model scheme and its advantages was used for developing a common curriculum in education of elementary and secondary school teachers. The researcher has given following findings in the form of suggestions. (1) Relating the methodology of teaching school subjects to the needs of handling different types of classes. (2) Orienting the Teacher Education programme to the modern trends of Indian society. (3) Modernizing and reorganizing Teacher Education program both at secondary and higher secondary level.

Sharma (1970) conducted a study on relation of achievement in theory and Practice Teaching in B.Ed. examination. The external assessment was considered as an index of achievement. The study came out with following findings. (1) The result that showed positive but low correlation between achievement in theory subjects and skills of teaching. (2) Various theory subjects have superfluous topics with no or little relevance to develop skill in teaching (3) The achievement in theory subjects do not take into account the important variables like personality of the teacher, his handwriting, his expression etc., which affect teaching.

Sharma (1971) made a study of the relationship of predictors of teacher, effectiveness at elementary level and follow up after one year of training. The research tools used for the study were: a rating scale for measuring teacher effectiveness, the teaching aptitude test developed by Pandey and the Minnesota teachers' attitude inventory. The findings of the study were: as regards classroom verbal interaction analysis, it was found that the teacher talk seemed to have negative correlation with scores on the teaching aptitude and academic grades on the whole. The combination of five predictors, i.e. teaching aptitude, academic grades, socio – economic status, teaching experience and age, in order of their arrangement, appeared to be sound predictors of teacher effectiveness.

Mehrotra (1973) studied the effect of teacher education programmes on the attitude of teachers towards the teaching profession. He found that: attitude of those who completed the

course was more favourable than that of those who did not. Attitude of women students was more favourable than that of men. The attitude of some age groups towards the profession at the end of the course was less than at the beginning. The attitude was more favourable with higher age group and it increased as age increased except a decrease in between the age group 32 – 36 years and the attitude became more positive with more teaching experience except for the group with 13 – 17 years of experience.

Sharma (1973) studied the compulsory courses in the theory of education offered by the Indian universities for B.Ed./B.T. degrees and found: out of thirty universities, twenty seven had not explicitly stated aims of compulsory papers prescribed for secondary school teachers; the number of compulsory papers ranged between four to six and variation from one university to another without sound logical base; no uniform policy for titles of these courses and; few trained teachers found their training useful and more than 50% found it somewhat useful.

Kohli (1974) critically evaluated the curriculum for teacher education at B.Ed. level in Punjab and suggested that sessional work was useful but it had to be organized in a more serious manner. Theory should be reduced to 50% and practical work should be increased accordingly. Block practice teaching could better be replaced by practice of internship under the charge of practicing school. Need was felt to extend the duration of training to two years instead of the existing one year system and to organize specified co-curricular activities on the basis of recommendations of Education Commission (1964-66). Annual review of the curriculum formed by a Committee of Teacher Educators, experienced heads of schools and school teachers should be included.

Buch (1975) made case studies of innovations in three teacher education institutions. The study on the programmes of the department of education of The M. S. University of Baroda, pointed out that innovations were undertaken in micro – teaching and evaluation - transfer of power from external to internal and making whole evaluation process a continuous one. The study on the programmes of Gandhi Shikshan Bhavan, Bombay reported innovations such as development of self-study and group study methods, activity centered learning, helping schools in solving their problems and development of a curriculum for lifelong education. Such innovations led to development of more favourable attitude at least among 20 %

student-teachers of 1970-74 periods. The study on the programmes of linking teacher education to the needs of the community at the M. B. Patel College of Education, S. P. University and V. V. Nagar reported innovations such as visit to rural sites, arrangement of extra moral lectures in rural areas and symposia and discussions on rural society.

Saran (1975) found that the attitude of teachers towards the teaching profession was positive, interest was positively related with attitude towards the teaching profession and level of education was positively related to degree of attitude towards the teaching profession.

Buch (1976) reported the innovations in teacher education at The M. S. University of Baroda, which were semester system, micro-teaching, interaction analysis, preparation of instructional and lesson plans, observation of classroom teaching, preparation of indigenous teaching aids, evaluating a lesson, preparation of socio-grams' and their interpretation, performing classroom experiments in role playing, goal setting behavior in game situation, preparation of case study of a child showing problem behaviour, practical work involving administering and scoring of different types of psychological and educational tests, preparing a profile of a student for guidance purposes, practical work leading to the preparation of pupils' progress card and cumulative record card, practical work in writing instructional objectives in behavioural terms, preparing objective based items, preparing unit tests, preparing model question papers, practical work in organizing P. T. A. meeting, health exhibitions etc., practical work to develop skills in preparing a class time table, home-work time table etc., preparing outlines of educational projects and preparing different types of assignments.

Government Central Pedagogical Institute (GCPI) (1976) conducted a comparative study of effects of microteaching under varying sources of feedback and attitudes of teacher-trainees towards teaching, Allahabad. The objective of the investigation was to study the effectiveness of supervisory feedback and peers' feedback on attitudes towards the teaching profession of pre-service secondary school teachers. Twenty students (science graduates and post graduates) were selected from 100 trainees of the GCPI of 1977-78. They were divided into two groups of ten students each. The tools used were the Teacher Attitude Inventory and observation schedules prepared by the CASE. The data were analyzed by using t-test and Mann Whitney U-test. The finding was: the treatments were equally effective in inculcating attitude towards teaching in student-teachers.

Patel (1976) did a comparative study of the effectiveness of integrating fine teaching skills through the summative model and the group with vicarious integration upon teaching competence of the student-teachers, R. P. Anand College of Education Borsad, 1976. The major objectives of the study were: to find out general teaching competency of the student teachers who were given training for same teaching skills (skills of probing questioning, skills of explaining, skill of using illustration with examples etc) through the micro-teaching technique and used micro-teaching skills through the summative model and micro-teaching technique along with vicarious integration and to compare the general teaching competency of the student-teachers who were given training for the teaching skills through micro-teaching with integration through summative model and with vicarious integration. The study was an experimental one. It followed a pre-test, parallel group design. The teacher attitude Inventory (Ahluwalia), the Baroda General Teaching competence scale (BGTC) and the Indore Teaching competence Scale (ITCS) were the tools used. The sample consisted of 20 student-teachers for the academic year 1979-80 divided into two equal groups by randomization. The important findings of the study were: the integration of the component skills in the context of micro-teaching took place vicariously and it did not need deliberate planning such as summative model.

Government Central Pedagogical Institute (GCPI) (1977) conducted a study of comparative effects of microteaching under simulated condition and real condition upon General teaching competence and attitude towards teaching, Allahabad. The objectives of the investigation were: (i) to study the comparative effectiveness of microteaching under simulated condition and under real condition on general teaching competency, (ii) to study the comparative effectiveness of simulated condition and real condition on the attitude of pre-service secondary school teachers towards teaching. Out of ninety-two student-teachers of GCPI, Allahabad, twenty postgraduate (mathematics) teachers were selected randomly. The tools used were Teacher Attitude Inventory, and the Baroda General Teaching Competence Scale and Evaluation Performa's. The data were analyzed by employing t-test. Findings were: there was no significant difference between the mean scores of microteaching under simulated condition and under real condition on general teaching competency; and the attitude of the two groups did not differ significantly from each other.

Kaul (1977) studied the impact of teacher training upon the attitude of student teachers towards teaching. The attitude scale was administered to the selected student teachers at the beginning and completion of B.Ed. training course. Analysis of variance was applied to study the significance of the difference in the means of the pre and post training attitude scores. He found that the favourable attitude of student teachers towards teaching do not increase significantly in magnitude with the existing patterns of teacher training.

Kanwal (1979) studied the impact of feedback on modifying teacher behaviour- a micro-teaching approach. The major objectives were: to develop the skills of probing questioning, stimulus variation, reinforcement, explaining and illustrating with examples in the student teachers through micro-lesson and to examine the effect of the skills of using probing questions, stimulus variations, reinforcement, explaining and illustrating with examples on general teacher competence. The sample for the study comprised of 32 student teachers studying in Dev Samaj College of Education, Firozpur. They were to be trained in microteaching skills using supervisors and peer supervisors as source of feedback. The tools used for collecting data were standard progressive matrices, SES Scale by B. Kuppuswam, Junior Index of Motivation, Baroda General Teacher competence scale, observation schedules for testing the skills of probing questions and stimulus variations, prepared by Passi and others, and observation schedules for testing the skills of explaining, illustrating with examples, and reinforcement developed at the CASE, Baroda. Data analysis was done by using mean, SD, correlations difference between the two means and analysis of covariance. The major findings were: more than half (57.13%) of the student teachers were highly academically motivated and the intellectual level of 34% of the total number of the students was above average, of 33% average and 22% below average. In the skills of probing questioning, stimulus variations, reinforcement explaining and illustrating with examples the student-teachers maintained progress both component wise and as a whole, in all the four experimental groups. The relationship between the initial stage and after the theoretical orientation stage was not significant in the case of all the skills except the skills of reinforcement, but the relationship between the final stage and the initial stage became significant both at 0.05 and 0.01 levels, with the exception of the skill of reinforcement. The feedback was an important source of variance which modified classroom behaviours and increased the teaching efficiency of the student-teachers. The feedback by the supervisors

brought better results than the feedback by the peer supervisors. Microteaching helped in developing certain skills in the student teachers thereby increasing their general teaching competence.

Verma (1979) did a study of teacher training as a catalyst of change in professional attitude of student teachers. The objectives of the investigation were: to find out the nature and extent of change in the professional attitude of teacher trainee as a result of teacher training programme, to find out the relationship of age, sex, marital status, caste, income of the family, source of income of the family, family size, rural-urban background, parental education, place of education, academic qualification, pre-training teaching experience, place of stay during education period, political affiliation and party affiliation with their professional attitude change and to construct and standardize a teacher attitude inventory and develop norms for it. The major findings of the investigation were: the validity coefficient of the inventory was 0.69 by correlating it with the teaching effectiveness score. The split half reliability of the inventory was 0.93 and test-retest reliability 0.63. The teacher training program was a catalyst of change in the professional attitudes of the teacher trainees. Sex, age, marital status, caste, rural-urban residence, income of the family, source of income of the family, size of the family, presence of teacher-member in the family, political affiliation, party affiliation, academic qualification, courses of the study of the teacher-trainees were not correlated with their attitudinal change. The teacher training programme was very effective for the attitudinal change of those teacher trainees who had got pre-training teaching experience of one year or less. It was less fruitful to fresher and almost useless to teacher trainees with pre-training teaching experiences of more than five years. The teacher training programme was more effective for attitudinal change among the trainees who had completed their education privately and also those trainees who had come from families where the source of income was business.

George and Anand (1980) studied the effect of microteaching on teaching self-concept and teaching competence of student teachers. The main objectives were : to study the effect of micro-teaching on teaching self-concept of student teachers in the control group and experimental group separately and to study the effect of micro-teaching as well as integration of skills on teaching competence of student teachers. Micro-teaching was treated as

independent variable, and teaching self-concept and teaching competence of student teachers were treated as dependent variables. The sample consisted of 20 student teachers, selected from a group of 60 willing student teachers from a training college in Shillong. They were divided into two groups of ten each as control and experimental groups. The matching was done based on intelligence, sex, age, qualification and teaching experience. For equating them on intelligence, the culture fare intelligence test (Scale 3) was used. Indore Teaching Competence Scale (ITCS) was used for finding out the teaching competence of student teachers in terms of integration of teaching skills. Observation schedules and rating scales relating to the five basic skills-skills of probing, stimulus variation, reinforcement, explaining and illustrating with examples, were utilized for giving feedback during microteaching treatment. A self-rating Teaching Self-Concept Scale (TSCS) was used for measuring teaching self-concept of student teachers. The TSCS was constructed especially for use in the present study. Means and standard deviations were computed for the pre-test, post-test and gain scores on TSCS and ITCS for control group and experimental group. Significance of the difference between means was tested using t-test for correlated data. Major findings of the study were: there was significant difference between the pre-test and the post-test mean teaching self-concept scores of the control group of student teachers. There was significant difference between the pre-test and the post-test means teaching self-concept scores of the experimental group of student teachers. There was significant difference between the mean gain scores in teaching competence of the control group and the experimental group of student teachers. Micro-teaching facilitated enhancement of the teaching self-concept of student teachers. It proved effective in improving teaching competence of student teachers. Micro-teaching treatment followed by summated strategy of integration of teaching skills was found superior to micro-teaching treatment based on independent teaching skills in improving the teaching competence of student teachers.

Raina (1980) did a factorial study of the personalities, attitudes to teaching and creativity of in-service and student teachers belonging to three subject areas. The purpose of this investigation was to study the pertinent personality factors, attitude towards teaching and creative potential of the sample in-service teachers and student teachers separately, belonging to the three teaching fields, viz. Science, Arts and Commerce. To study the differences between the in-service teachers and student teachers of the various teaching fields on

measures of Personality, attitude towards teaching and creativity and to study the differences in and between in-service teachers and student teachers specializing in the teaching of different subjects when scores derived from different measures were factor-analyzed. The psychometric instruments administered to the sample in-service teachers and student teachers included: Sixteen Personality Factor Test (16PE) - (Cattell, 1964) adapted and standardized by Kapoor and Mehrotra (1967); Minnesota Teacher Attitude Inventory (MTAI) (Cook, Leeds and Callin, 1951); and Something about Myself - a measure of creative potential (Khatena, 1974). The sample of this investigation consisted of 180 in-service teachers and 180 student teachers specializing in the teaching of Science, Arts and Commerce subjects. Each group in both the samples consisted of 60 subjects. All the in-service teachers and student teachers were males only. The following statistical measures were used: Mean and Standard Deviation, Rank Order Correlation (Rho), Analysis of Variance, t-test, and factor analysis. On the basis of t-test between the means the following conclusions were arrived at : The in-service teachers are more intelligent and more emotionally stable than the student teachers who are less intelligent and affected by feelings, the in-service teachers are more humble and emotionally stable than the student teachers who are assertive and happy-go-lucky, the in-service teachers are more venturesome and trusting than the student teachers who are shy and suspicious, the in-service teachers are more shrewd and placid than the student teachers who are forthright but apprehensive, the in-service teachers are more group dependent and relaxed than the student teachers who are self-sufficient but tense. There was a significant difference in the MTAI scores between the total in-service teachers and total student teachers. The mean difference of 9.03 in the MTAI scores was in favour of student teachers *t* being significant beyond 0.01 level of significance. Judged by the magnitude of means of the different factors that comprise the Something About Myself (SAM) – a measure of creative potential comprising of six factors – the 180 in-service teachers were highest on Factor IV (Intellectuality) followed by Factors III (Self-Strength), Factor I (Environmental Sensitivity), Factor V (Individuality) Factor II (Initiative) and Factor VI (Artistry).

Sinha (1980) studied the impact of teacher education programme on the professional efficiency of the teachers. The main objectives of the study were: to find out the impact of teacher education programme on (i) the effectiveness in classroom teaching, (ii) teacher's competence to perform non-teaching jobs, such as maintaining good interpersonal relationship

with, giving guidance to students, participating in the activities of associations and participating in co-curricular activities, and (iii) the attitude of teachers towards teaching and teacher-pupil relationship. The major findings of the study were: in the sphere of professional efficiency, the trained teachers were better than the untrained teachers in the knowledge of the subjects, preparation for teaching, self-confidence, voice, pronunciation, facial expression and in actual classroom teaching taken as a whole. The trained teachers were better than the untrained teachers about the aims of the lesson, its appropriateness, its organization, the use of teaching devices, presentation, questioning, answering students' questions, the use of blackboard and other teaching aids, eliciting students' cooperation and participation, and effective closure. There was no significant difference in the competence of the two groups of teachers to manage the classroom discipline and to maintain a congenial climate for the teaching learning activity. There was no significant difference between the two categories of teachers in their attitude towards the teaching profession and teacher pupil relations.

Dubey (1981) compared the secondary teacher education programme in Madhya Pradesh and Maharashtra and found: (a) the fifth Annual Conference of the State Board of Teacher Education in 1976 led to the preparation of need-based curriculum for Bachelor of Education course, which was further validated in several subsequent conferences and workshops and implemented in several universities of Madhya Pradesh. (b) For Maharashtra, the study recorded the terms of reference of the Maharashtra Committee on Teacher Education, development of teacher education, the duration and, degree in teaching its curricula, practice teaching provisions, the scheme of examination and the staff and their work load.

Jangira et al (1981) studied the effect of training using the micro-teaching techniques on the competence of science teachers to use the skills of reinforcement, probing, stimulus variation, illustrating with examples and increasing pupils' participation. The sample consisted of 18 science teachers teaching standard IX in Gurgaon and Sohna blocks of Haryana. Eleven of the teachers were male and seven female, all of them were B.Sc. and B.Ed. it was an experimental study. Tools used were Teaching Assessment Battery for assessing the teaching competence of in-service science teachers, Teacher Behaviour Occurrence Schedule to provide feedback to the trainees undergoing practice to attain mastery over the skills and Teacher Behavior Rating Scale to provide feedback regarding the adequacy and appropriateness of behaviors

occurring under a skill. Main findings of the investigation were, the means of the teachers' scores on the competence to use the skills of probing, questioning, reinforcement, stimulus variation, illustration with examples, and increasing pupils' participation as well as gains in the teachers' scores on general teaching competence before and after training in teaching skills using micro-teaching differed significantly at .01 level. Thus, it implied that training in teaching skills using micro-teaching technique brought about significant improvement in teaching skill competence and general teaching competence of science teachers.

Singh (1981) did a comparative study of different strategies of integration of teaching skills. The major aims of the study were: to compare the effects of integration training through summative pattern with those of the traditional practice teaching programme on three criterion variables viz., attitude towards teaching, integration of teaching skills and general teaching competence and to find out whether different sources of feedback produced varied effects on the above variables. The sample consisted of 48 B.Ed. trainees chosen out of a total of 200 and divided into four groups of 12 trainees each - the control group, the auto feedback group, the peer - feedback group and the supervisory - feedback group. Data were collected with the help of the Passi and Lalitha, the teaching Assessment Scale of Passi et.al. and Ahluwalia's Teacher Attitude Inventory. The study followed the four parallel-group design providing all the groups with similar training in teaching skills in simulated micro-teaching situation and measuring the difference attributed to integration of teaching skills. The t-test was applied to test the significance of difference between the means of pre-test and post-test scores of the four groups. The technique of analysis of covariance was resorted to for comparing the significance of variance among the four groups. The findings of the study were: there was significant positive impact of integration training through summative model of general teaching competence. It implied that integration training was helpful to student-teachers in achieving better teaching competence and better teaching effectiveness. There was positive influence on the teacher's performance of immediate feedback (from peers or supervisors or through reply of the tape) given more objectively and definitely in terms of the components of integrated skills. The micro-teaching technique in the controlled laboratory environment as well as the reality of bona-fide teaching was quite effective.

Das et al (1982) conducted a study on effectiveness of different strategies of integration of teaching skills in developing general teaching competence of student-teacher, Department of Teacher Education, NCERT. The objectives of the investigation were: to determine the effectiveness of non-integration strategy and summative model of integration of teaching skills in developing general teaching competence in student-teachers, to study the relative efficacy of non-integration strategy and additive model of integration of teaching skills in developing general teaching competence in student-teachers, to determine the comparative effectiveness of non-integration strategy and dyad strategy of integration of teaching skills in developing general teaching competence in student-teachers, to study the relative effectiveness of non-integration strategy and summative model of integration of teaching skills on the integration of selected teaching skills, to determine the relative efficacy on non-integration strategy and additive model of integration of teaching skills on the integration of selected teaching skills, to study the relative efficacy of non-integration strategy and dyad strategy of integration of teaching skills on the integration of selected teaching skills. The main findings of the study were: the summative integration strategy tended to improve the teaching competence as well as the quality of integration of the teaching skills. The additive strategy of integration of the teaching skills did not improve the general teaching competence of the student-teacher but tended to improve the quality of integration of the teaching skills. The dyad strategy of integration tended to improve the general teaching competence of the student teachers as well as the quality of integration of the teaching skills but the latter was not significant.

Sinha (1982) conducted an evaluative study of teacher education in Bihar. The main objectives of the study were: to evaluate various Innovative programmes in the field of teacher education in Bihar and to examine the impact of these programmes on the quality of output. The study was based on randomly selected sample of 44 primary teacher education colleges out of a total of 84 colleges and all 10 secondary teacher education colleges in Bihar. A questionnaire, consisting of forty items seeking personal data, Institutional data, and information about teachers, students, syllabus and evaluation process was prepared for the study and was sent to the Principals and the Teacher Educators of the selected Colleges in sample. The investigator personally visited the colleges and collected data. The Principals and the senior Teacher Educators were also interviewed to verify the entries in the questionnaire

and missing items of information were thus supplemented. The major findings of the study were: at the primary level about 60 percent of the Teacher Educators were trained graduates and their performance was not satisfactory. A majority of the colleges had inadequate staff, library, equipments and laboratory. Recent innovations in Teacher Education had not been incorporated into the system. In-service programmes were not carried out 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 by the method masters.

Srivastava (1982) conducted a study to find out the effectiveness of teacher education programme. The major findings of the study were: Co-ordination between the department and secondary schools, other training schools and departments, and community was lacking. There was little uniformity in organizing practice teaching and sessional work in various departments. As revealed by the examination results, teaching efficiency was found to be higher among trainees as compared to professional knowledge. There was no significant contribution of the programme in developing teaching aptitudes among trainees as revealed by the comparative study of means of pre-test and post-test scores. Immediately desired changes in the programme were in its curriculum, organization of practice teaching, admission and evaluation procedures, establishment of independent colleges of education, teacher-educators' orientation and research facilities.

Srivastava and Kanti Mohan (1982) studied effectiveness of the teacher education programme of Avadh University. The objectives of the study were: to study the actual position of resources, existing conditions and working of the teacher education programme, to study the quantitative and qualitative characteristics of the programme's end-project, to study the effect of the programme on teaching aptitude of student-teachers, to study opinions regarding quality and sufficiency of existing conditions and working of the programme from the point of view of organization of professional education of secondary teachers, to study opinions regarding utility of the programme from the point of view of teacher's job and to ascertain the most desirable changes needed for making the programme effective. The study was a normative survey. All the teacher education departments of the 10 affiliated Colleges of Avadh University situated in five Districts of Faizabad Division - Faizabad, Gonda, Bahraich,

Siltanpur and Pratapgarh - were included in the study. The sample consisted of 10 College Principals, 76 Teacher Educators, 929 student-teachers, 175 Secondary Teachers who had been trained by these departments, 38 Secondary School Principals and 8 Educational Administrators. The school data were collected with the help of two questionnaires, two interview schedules, four rating scales (all prepared by the investigator), one test of teaching aptitude prepared by Dr. Jai Prakash and Dr. R. P. Srivastava, observation of institutions, and content analysis of the university, college and government records. The major findings were: the Teacher Educator and student-teacher ratio was 1:14, which was higher than prescribed by the government. 60% of the departments did not have Educators in all school subjects in their staff. All the Teacher Educators belonged to U.P. were upper-caste Hindus and married. Not all of them had double post graduate degree; less than 10% 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 were inadequate. 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 of 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. Separate divisions were given for theory and practical (practice teaching and sessional work) examinations. The output of the programme was not at par with the capacity of production. Wastage of more than 9% was observed. Immediately desired changes in the programme were in its curriculum, organization of practice teaching, admission, evaluation procedures, establishment of independent colleges of education, Teacher Educators, orientation and research facilities.

Hemabujam (1983) conducted a critical study of teacher education at secondary level in Tamil Nadu. The objectives of the study were: to conduct a survey of teacher education at secondary level to make a critical appraisal of the B. Ed. program in Tamil Nadu, at its operational set-up, to report briefly on the historical background, to report a comparative study of the contemporary teacher education program at Secondary level in advanced countries abroad, with reference to that in India and in Tamil Nadu, to locate the differences

in the system here, if any and suggest remedies. Data were collected from all the colleges of education in Tamil Nadu through a comprehensive questionnaire, which collected data regarding the functional aspects of teacher education. The opinions of Teacher Educators on various aspects and their suggestion for improvement and remedies for the defects or shortcomings in the program were collected. An interview schedule was also used for collecting data. The findings of the study were: the State government controlled the recruitment of all Teacher-Educators. Selection was done on the reservation basis. The service of Teacher Educators was secure and their salaries were paid. The comprehensive B.Ed. curriculum was not effectively implemented due to time shortage, semester internal assessment etc. The revised B.Ed. syllabus in force in Tamil Nadu was appropriate and fulfilled the requirements on the professional side, but lacked in the content knowledge of the academic subjects.

Kakkad (1983) studied the secondary teacher education curriculum as an analytical study and developing teacher education programme. The objectives of the study were: to analyze existing B. Ed. curriculum of various representative universities of four different regions of the nation, to study the common and uncommon aspects of secondary teacher education programme analytically, to know the changes those were expected in Secondary Teacher Education Programme (STEP) and to develop a STEP. The tools used were an interview schedule and a comprehensive questionnaire prepared by the researcher. The major findings were: The duration of the STEP should be two academic sessions. The aspects of STEP should be Educational Theory, Practice Teaching, Community Work, Work Experience, Sessional Work and Co-curricular Activities. There should be two subjects for methodology of teaching and number of lessons should be 15 in each subject. Internship in teaching should be introduced for a period of three months. There should be a provision for urban and rural STEP. There should be examination in theory and practical. Separate results in theory and practical should be declared. Assessment for theory papers should be in marks. Evaluation of practical, sessional work and other aspects may be in grades.

Patil (1984) conducted a differential study of intelligence, interest and attitude of the B.Ed. college students as contributory factors towards their achievements in the compulsory subjects. The objective of the study was to study the relation between intelligence and

achievement, interest and achievement, and attitude and achievement of B.Ed. pupil teachers. The sample consisted of 500 pupil teachers of Nagpur University. The tools used were PSM verbal intelligence test by Dani, Teacher Attitude Inventory by Ahluwalia, Interest Inventory adopted from the Devon Interest Inventory. The correlations between intelligence and achievement ($r = 0.31$), interest and achievement ($r = 0.11$), and attitude and achievement ($r = 0.16$) were positive and significant at .01 and .05 level of significance. The correlation between intelligence and achievement was higher than the correlation between interest and achievement and also that between attitude and achievement.

Sharma (1984) conducted a study on teaching aptitude, intellectual level and morality of prospective teachers. The sample of the study included 412 student teachers who were studying in ten teachers colleges of three universities of Rajasthan. The teaching aptitude test, group mental ability test and self made teachers Morality test were used for data collection. The findings revealed that about 75% of student teachers were below average in aptitude and intellectual ability, an insignificant difference was found in teaching aptitude ability in sex wise and discipline wise comparison and a positive correlation were found between teaching aptitude, intellectual level and morality of prospective teachers.

Tharyani (1986) conducted a study of the important factors affecting teacher- effectiveness of B.Ed. students, SCERT, Pune. The objectives of the study were: to examine the role of IQ, attitude, academic achievements, and content knowledge factors on the teacher effectiveness; to examine and identify the factors favourable for high teacher effectiveness, and to examine and identify the factors responsible for low teacher-effectiveness. The findings of the study were: The IQ of teacher trainees was found to be a useful predictor. Teacher's attitude towards their pupils did not show any significant relationship with teacher behaviour in the case of high achievers. In the case of low achievers, it showed a negative significant relationship. Student's knowledge in their respective subject area was found to be the best predictor.

Bhatia (1987) evaluated new B.Ed. curriculum in the colleges of education affiliated to the University of Bombay. The main objectives were: to study the relevance of the topics in the revised B.Ed. curriculum, to study the relevance of practice teaching programme, to study the effectiveness of the evaluation scheme in the new B.Ed. Curriculum and to suggest

improvements. The study employed the normative and descriptive survey method. The main conclusions of the study were: there were some important changes in the new B.Ed. syllabus on one hand; while on the other hand; quite a few topics were repeated. Implementations of new curriculum were found to be difficult. Teacher - Educators unanimously agreed that the area of practice teaching was the most important part of B.Ed. programme. Practical work was a useful part of the curriculum and should be organized more seriously. A large majority of the Teacher Educators found the B.Ed. curriculum mechanical and book-oriented. The study indicated that the theory load should be brought down and the ratio of the theory and practice should be fifty: fifty.

Dave (1987) studied the relative effectiveness of microteaching having summative model of integration versus mini-teaching model in terms of general teaching competence, teacher attitude towards teaching, pupil liking and pupil achievement. The objectives were to compare the effectiveness of the summative model of integration (SMI), mini-teaching model of integration (MMI) and traditional model of integration in terms of: General teaching competence (GTC), Attitude of teachers towards teaching (TATT), Pupil achievement, Pupil liking. 30 student teachers were selected randomly as sample, of 180 student teachers admitted during 1983-84 academic session. All pupils (402) taught by student teachers formed sample. Tools used were: GTC scale developed by Passi and Lalitha, TATT developed by Ahluwalia, Pupil liking scale by Malhotra and Passi, Pupil achievement test developed by researcher. Findings were: teachers belonging to MMI group did not attain a significantly favorable attitude towards teaching in comparison with those belonging to SMI and TMI group at Post test I. Teachers belonging to MMI group produced a significantly favorable attitude towards teaching in comparison with SMI and TMI group at Post test II.

Mathur (1987) studied the attitudes of secondary teachers towards creative learning and teaching by using the scale developed by Torrance and Phillips. The findings were by and large, teachers tended to have favorable attitude towards creative learning and unfavorable attitude towards creative teaching.

Das (1991) made an attempt to compare the evaluative procedures of secondary teacher - training institutions in Gujarat state. The objectives of the study were: to find out the

differences in the evaluative procedures among the secondary teachers' training institutions in Gujarat state and to study the opinions of the principals/ heads of the institutions regarding the evaluative procedures which they are adopting. The findings of study were: diversity exists in the evaluation process in teacher-training colleges, majority of the institutions followed a mixture of internal and external evaluation procedures, an external cum-internal marking system with continuous evaluation and the semester system should be adopted in all teacher training colleges.

Pugazhenth (1991) carried out a study of teacher education programme through correspondence system in Madurai Kamaraj University. The objectives were to study the development of teacher education programme through correspondence system in Madurai Kamaraj University. To study the status and effectiveness of teacher education programme through correspondence system in Madurai Kamaraj University with reference to the following aspects: Admission Policies, Infrastructural facilities, Students back-ground and aspirations, Lesson materials, Personal contact programme (PCP), Assignments, Radio-talk, Study Centres, Teaching Practice Programme, Dissertation, Academic Achievement and Finance. Different kinds of data required in connection with the objectives mentioned were collected from multiple sources such as functionaries, beneficiaries and through documentation analysis. It was conducted mainly as a descriptive survey. All B.Ed. and M.Ed. students of the Institute of Correspondence Course and Continuing Education of Madurai Kamaraj University, who were enrolled in the academic year 1985 – 86 formed the population of the present study. Three hundred (25% of 1200) B.Ed. trainees and 300 M.Ed. candidates (25% of 1200) were chosen as the sample on stratified random basis. The stratification was done with respect to variables rural/urban; male/ female; teachers/non-teachers. 8 M.Ed. students and 300 B.Ed. students of three colleges were also chosen as sample. Students who had passed their B.Ed. /M.Ed. Course from 1979 - 80 to 1984 - 85 formed the population of successful students, 65 out of 120 (5.4% of 1200) of B. Ed., 89 successful students out of 120 (7.4% of 1200) M.Ed. constituted as sample. 39 dropouts of B.Ed. and 17 dropouts of M.Ed. belonging to the academic years 1983 - 84; 1984 - 85 and 1985 - 86 were chosen as sample. Three hundred Guide Teachers from the schools situated in and around Madurai City were selected. 7 teachers of ICC, 2 CE (Faculty) and 73 resource persons (writing/ review of lessons, radio-talks, assignment values) involved in the

Programme were taken as sample. Tools used were questionnaire for the students under training, successful students, dropouts, the teachers of correspondence course, guide teachers, the students of formal colleges of education. A supplementary questionnaire for the students of Tirunelveli centre, Information schedules were used to collect information from the institution, Non-structured observation schedule was used by the researcher to observe day-to-day activities of Institution and PCP. Three tools developed by P.K. Sahoo were modified by appropriately converting question of general nature into question related to teacher education. In all questionnaires space for open ended free response evaluation asking for suggestions to improve the programme was also provided after each component of the programme. The data related to development of teacher education, admission, admission policies, enrolment, dropouts, accounts, budgets and examination results were collected from the documents of the University, Annual Report, Budgets etc. Questionnaires for dropouts and successful candidates were mailed to them. Rest of the data was collected by the researcher in person. Data collected from different sources regarding student's background, reasons for joining B.Ed. /M.Ed., reasons for joining correspondence courses, learning packages, personal contact programme, assignments, radio-talks, teaching practice programme etc., were analysed and interpreted qualitatively. Frequency and percentage analysis were used for analysing quantitative data. Data related to the academic achievement of the students of correspondence course and formal colleges of education were analysed with the use of appropriate statistical techniques such as mean, standard deviation and t-test. Findings: Candidates with mere graduate qualification without any teaching experience were admitted more from the academic year 1983 -84 onwards. The infrastructural facilities in the campus for administrative side were satisfactory. Whereas the facilities provided for the teachers and students in connection with accommodation was not satisfactory. There is a broad age range among the students from 25 to 61 years. The mean age calculated for the B.Ed. and M.Ed. students was 35.4 and 41.9 years respectively. Regarding the place of residence it was found that 38% M.Ed. and 49.4% B.Ed. students belonging to the rural areas have been admitted. The clientele is heterogeneous in terms of scholastic, qualifications, age and maturity. Another interesting factor that emerged in the study was low rate of dropouts, which was 1.7 per cent to 4.2 per cent at B.Ed. level and 3.2 per cent to 7.4 per cent at M.Ed. level. 52% of the B.Ed. students and 37 % of M.Ed. students found it convenient to receive the lesson

materials in installments. Lesson materials were found more useful to them to a large extent (B.Ed. - 94%; M.Ed. - 88%). They were used for examinations purposes and for getting comprehensive idea of the subject. Students found it very difficult to use the lessons because they did not cover the entire syllabus (B.Ed. - 67%; M.Ed. - 61.7%), had too many printing mistakes (B.Ed. - 78%; M.Ed. - 1.7%). Lessons were just in the form of conventional essays (B.Ed. - 54.3%; M.Ed. - 42.7%). Definitions, terms and concepts were not clarified (B.Ed. - 52.3%; M.Ed. - 36%). It was found that the lesson materials were not sent in time and order. It was found that the centres of PCP in Tirunelveli, Trichy, Coimbatore (three out of five) were conducted in schools without having sufficient facilities. The basic amenities such as spacious classroom, raised platforms, chalkboard of adequate size and allied facilities ventilation, toilet facilities, faculty room were not satisfactory, whereas the location of the venue was easily accessible. Intimation for resource persons were sent only few days earlier without specifically mentioning timings, which they found it very difficult to adjust with their other engagements. The time schedule of PCP was very tight from morning 8.30 to evening 6.30 so the students did not get time to meet and clarify their academic and administrative doubts. The PCPs were utilized only for giving continuous capsule lectures in large halls. Students found that the preparation of assignment was useful in various ways: securing internal assessment mark (100%); understanding the subject clearly (B.Ed.- 47.9% ; M.Ed. - 1.8%); making sure of what they had learnt (B.Ed.- 44.2% ; M.Ed. - 24.2%); enabling them to select and organize relevant materials (B. Ed. - 45.3% ; M.Ed. - 56.9%). The assignments in lieu of response sheets received were not returned with corrections or comments. Sufficient numbers of assignments were given but there was no monitoring of corrections. The assignment evaluators generally did not give any comments and suggestions on the body of the assignments. They simply gave a few tick marks and then awarded marks. The investigator also verified the assignments valued and found that they were valued in a very careless manner. It was found that 30 % of students were regular listeners and 37 % of them were not listeners of radio-talk. Sixty nine per cent of non-listeners stated that the time of broadcasts was not suitable to them; students preferred the talks in early hours than late night. Students (B.Ed. - 87.5%; M.Ed. - 100%) after their visit to these study centres were dissatisfied with the facilities provided there. There were no facilities for providing guidance and for giving information regarding the academic matters. 45% of B.Ed. trainees found it difficult to get the

permission from the heads of the schools for doing their teaching, practice programme. 113 (84.3%) students expressed the problem of finding suitable guide teachers. Guide teachers reported that they were not properly instructed regarding the duties of trainees in teaching practice programme. The means, standard deviation and t-value calculated based on the marks obtained in the university examination by the students showed that the formal college students performed better than the correspondence course students in all core papers and optional subjects. The opportunity costs of B.Ed. and M.Ed. correspondence course students were Rs.1640/- and Rs.980/- respectively. The difference in the unit costs between formal education and correspondence education was found to be more than Rs.6958 for B.Ed., course and Rs.8242 for M.Ed. course.

Sundarajan et al (1991) for their study on student-teachers' attitude towards teaching and their interest in teaching took a sample of 262 student teachers of Annamalai University. It was found that as many as 95.04% of the B.Ed. students of university had a favourable attitude towards teaching. No significant difference between men and women student-teachers, Humanities and Science student teachers, graduate and postgraduate student-teachers in relation to their teaching attitude was found. Women student-teachers were found to have better interest in teaching as compared to men student-teachers.

Bhosale (1992) made a critical study of the new curriculum of teacher education developed by all the universities in the State of Maharashtra. This study addressed itself to the comparison of different curricula of education developed by all the universities in the State of Maharashtra and focused on problems faced by Principals, Teacher-Educators and student-teachers. The objectives of the study were: to study the recommendations made by the Kothari Commission with reference to teacher education, to study the recommendations made by the State Government of Maharashtra with reference to teacher education based on recommendations made by the Kothari Commission, to study critically and in depth the curricula of teacher education prepared by all the universities of the State of Maharashtra, to identify the difficulties faced by the Principals in implementing new curriculum of teacher education and to study the opinions of Principals, faculty members and Student-Teachers with respect to new curriculum of teacher education. The findings of the study were: the majority of the topics were common to the teacher education curriculum of all the universities in the

State of Maharashtra. There was a variation in topics with respect to some of the papers. The number of lessons to be taught by the student-teachers was not the same in all the universities. Some of the optional papers and the nature of practical work were also different with respect to the curricula, according to student-teachers, and Teacher Educators. All the optional papers taught were quite essential to the teaching profession. The majority of Principals, Teacher Educators, student-teachers and teachers were of the opinion that the new curriculum was suitable for developing teaching competence among the Student-Teachers.

Patted (1992) studied whether the selection procedure, the changed syllabi, the innovations, and the evaluation procedure have any impact on the qualitative improvement of the secondary teacher education programme in Karnataka. The objectives of the study were: to study the selection procedure, curriculum and methods of teaching of pre-student teaching, procedure of evaluation and existing conditions of resources in the colleges of education in the universities of Karnataka State, to study the teaching and other school- related behaviour of teachers with varying experience and trained with different B.Ed. syllabi and to analyze the B.Ed. syllabi in the universities of Karnataka State from 1968- 88. The major findings of the study were: the eligibility for admission to the B.Ed. course which was 35% from 1968-81 had been raised to 45% in 1982 in all the universities. Lecture, assignment, discussion and seminar methods were used, while case study and project methods were used as Innovative methods. Most of the colleges had their own buildings, classrooms, psychology-lab, audio-visual room, ladies' lounge, books and journals, and S.U.P.W. facilities. A majority of the colleges were run by the students' fees, donations and management funds, except the colleges run by the State government or the university. A majority of the teaching staff had B.A. / B.Sc., M.A. / M.Sc. and M.Ed. degrees in the second class; few had Ph.D. degrees. Few universities had framed the objectives after 1982 and framed regulations for admission to the B.Ed. course. The enhancement of minimum percentage at the Bachelor's degree to 50% and a minimum of two school subjects to be studied at this level and an entrance test were quite essential for qualitative improvement of the secondary teacher education course. For assessment of annual lessons, the mean of the two examiners was taken into consideration.

Walia (1992) evaluated secondary teacher education programmes in northern India. The objectives of the study were: to study the curriculum of teacher education at the secondary

level. To discover the weaknesses and dysfunctionality of the curriculum and practices at this level of teacher education and to work out a functionally useful teacher education programme for the country. The major findings of study were: The curriculum of secondary teacher education lacked uniformity and clear-cut definition, the majority of teacher education institutions had late defective admission criteria and late admissions. Provision for the optional/specialization paper ranged from 4 to 39 papers in different universities, out of which only one paper was to be selected and four years teacher education programme was preferred to the existing one year B.Ed. programme.

Patil and Deshmukh (1993) studied the relationship between aptitude in teaching and teaching efficiency of pupil teachers. The major findings were: the male and female pupil teachers differed significantly on their teaching aptitude in favour of the female pupil teachers. The graduate and post graduate pupil teachers also differed significantly on teaching aptitude in favour of the post graduate pupil teachers. When pupil teachers of science and arts groups were compared for their teaching aptitude it was found that they did not differ significantly.

Behari (1998) conducted a study on analysis of teacher education curriculum in the context of requisite abilities for effective teaching. The study analyzed the teacher education curriculum in relation to develop requisite abilities for effective teaching. The sample consisted of 187 student-teachers enrolled at Central Institute of Education (CIE), University of Delhi (in one session). Student-teachers' ability schedule consisted of a list of abilities categorized into two major areas. Personality characteristics and skills of teaching, covering 40 components were employed for data collection. Major findings of study were: the methodology of teaching paper was more helpful than foundation papers taken together in developing abilities, especially skills, but practice teaching or practical skills in teaching were found to be more helpful than the rest of the teacher education programme in developing abilities especially skills. Dramatics as an activity and discussions as a mode of transaction of programme were found to be more helpful. It was observed that a theory practice link was missing in teacher education programme and therefore the student-teachers were not able to link what they had learnt.

Kumar (1998) studied the efficacy of secondary teachers' pre-service training programme in relation to certain teacher effectiveness components like teaching skills, attitude towards teaching profession and education. He classified teaching skills into three categories depending upon whether the teaching skills are being used more effectively by the trained teachers, untrained teachers or whether both groups. Major findings of this study were: trained teachers were more effective in three skills viz. writing instructional objectives, providing reinforcement and evaluation of pupils' progress. Untrained teachers were more effective in four skills viz. creating set of induction, introducing the lesson, skill of explaining and skill of communication. Trained and untrained teachers were equally effective in ten such skills. There was no significant difference in the attitude of teachers with pre-service training and those without pre-service training towards teaching profession and education. Items considered from the school management course emerged out to be most relevant and of most practical utility in day-to-day classroom teaching.

Srivastava et al. (1999) conducted a study on existing pattern and restructuring of secondary teacher training. The objectives of the study were: to study the existing pattern of secondary pre-service teacher training in the country, to analyze various components of the training, to develop an improved model of teacher training and to prepare guidelines to restructure the internship programme. Major findings were: micro - teaching, Herbartian pedagogy, simulated teaching, lesson planning and teaching with aids constituted the existing pattern of teaching in RIEs. Lesson planning constitutes the prominent pattern of practice teaching in Institutes of Advanced Studies in Education (IASE) and other training institutions. In University Departments of Education in addition to lesson planning, ET constitutes existing pattern internship. More RIEs emphasize on questioning, explaining, stimulus variation, and reinforcement than other training skills provided. More number of IASEs focuses on introduction of the lesson as an important training skill whereas questioning was emphasized more by other training institutions. University Departments of Education emphasize more on introduction of the lesson, writing of instructional objectives, questioning, and explaining as training skills to be provided in practice teaching. In majority of the RIEs demonstration lessons were conducted by Teacher Educators and in each teaching subject. In most of the IASEs demonstration lessons were conducted in real- classroom situations. Demonstration lessons were conducted by Teacher Educator in majority of the University Departments of

Education and other Teacher Training Institutions. Majority of the RIEs gave preparation of achievement tests and teaching materials as assignments. In other training institutions mainly preparation of teaching materials were given as assignments. In case of IASEs preparation of achievement tests constitute majority of assignments whereas in case of university departments of education, textbook analysis, study of science laboratory and preparation of teaching material constitute majority of assignments given and in IASEs, University Departments of Education and other Training Institutions lesson plan was discussed by the teacher.

NCTE (2001) examined the teacher education in Assam. The major objectives of the present study were: to study the growth and development of teacher education in the State of Assam along with its present status and to study the management system, infrastructural facilities, admission criterion, courses offered and their mode of transaction and other allied matters related to the quality of Teacher Education in Teacher Education Institutions of Assam. Major findings of study were: Teacher Education Institutions were lacking the minimum basic facilities like classrooms, furniture, equipment etc. Besides, required number of qualified staff was also not available in most of the Institutions. To improve the quality of teachers, it was desirable to improve the quality of Teacher Educators and Teacher Education Institutions. It is also urgently necessary to introduce compulsory pre-service and regular in- service training of teachers at all the levels of school education.

NCTE (2001) studied the teacher education in Andhra Pradesh. Being a State level study, it covered all Teacher Education Institutions in the State at Primary and Secondary levels. It highlighted the present status, its historical growth, the organizational set up, roles and functions of these Institutions. It also studied the strength and weaknesses, problems and issues pertaining to academic, financial and professional aspects. It provided databases to the survey conducted in Andhra Pradesh. The major findings of the study were: in colleges of education, there was a dearth of lecturers in subject like philosophical foundations and psychological foundations. The situation in DIETs, CTEs and IASEs in the State appeared to be unsatisfactory according to NCTE norms. Hence there was an urgent need to recruit the staff members to satisfy the requirement of manpower planning as also to have an effective and efficient teacher education system in the State.

Singh (2004) conducted a comparative study of values and attitudes of school and college teachers towards teaching profession. The objectives were to know whether values and attitude towards teaching profession of teachers are correlated with each other and to compare attitude of college teachers towards teaching profession with that of school teachers. The type of study was descriptive method of research and 480 teachers were selected as a sample by applying multistage randomization technique. The tools used were Study of Values (1992) prepared by Dr. R. K. Ojha and Teacher Attitude Inventory (1978) by Dr. S. P. Ahluwalia. Data was analyzed by using statistical techniques- mean, median, mode, standard deviation; skewness and kurtosis were applied to examine the nature of distribution of scores of sample. Analysis of variance (ANOVA), 2*2*2 factorial design was employed. t-test and Pearson's Co-efficient of Correlation were also used. The findings were, there was a positive and significant correlation between aesthetic value and attitude towards teaching profession and no significance difference in attitude of school and college teachers towards teaching profession was found.

Viswanathappa (2005) in his study - Attitude towards teaching and teaching competence, attempted to find out the influence of attitude towards teaching, rank in Ed. CET (Education Common Entrance Test), age, father's education and occupation on the teaching competence of student-teachers. Teaching Competence Scale which consisted of four parts: Lesson planning, Presentation, Closure and Evaluation were used to collect the data. The data was collected from 200 students-teachers of education colleges affiliated to Krishnadevaraya University Anantpur during the practice teaching October-November 2003-04. Following were the conclusions of the study: attitude of student teachers towards teaching significantly predicted the teaching competence of the student teachers in lesson planning, presentation of lesson, closure of lesson, evaluation and teaching competence in total. The CET rank for admission did not predict the teaching competence of B.Ed. students in lesson planning, presentation, closure, evaluation and teaching competence in total.

Kulshreshtha and Heeranandini (2006) studied educational aptitude of prospective teachers. A sample of 140 B.Ed. students was taken for the study. R.P. Gupta's differential aptitude test for four fold educational activities was used to measure the aptitude of prospective teachers for teaching, guidance, management and research sectors of education.

The findings were: prospective teachers of both the groups (male and female) had higher aptitude for teaching than other three aptitudes. Male prospective teachers were better in guidance and management aptitude than in teaching and research. General teaching competence and professional interest of the pupil teachers significantly affect their teaching aptitude. Effect of academic achievement on teaching aptitude of the pupil teachers was positive but not significant at acceptable level of confidence.

Sharma (2006) conducted a study of teaching aptitude in relation to general teaching competency, professional teaching and academic achievements of B.Ed. pupil teachers. The findings were: discipline and sex of the pupil teachers does not contribute towards teaching aptitude of pupil teachers. Female arts pupil teachers secured significantly higher mean scores than their counterpart male arts pupil teachers. Teaching aptitude of the pupil teachers was significantly correlated with their general teaching competency.

Goel et al (2007) conducted a comparative study of teaching aptitude of pre-service and in-service teacher teachers and the sample consisted of in-service teachers of second year IGNOU B.Ed. students, who had attended the workshop during May, 2006 and pre-service teachers of one division of B.Ed. students of The Maharaja Sayajirao University of Baroda, of the academic year 2006-07. Data was collected by administering teaching aptitude test in classroom settings and analyzed by employing t-test. The mean achievement score of the in-service teachers on teaching aptitude was found significantly higher than that of the pre-service teachers.

Kaur (2007) carried out a study on impact of B.Ed. programme on teacher effectiveness, personality, teaching aptitude and attitude towards teaching of prospective teachers. The study revealed that B.Ed. programme had more favourable effect on teacher effectiveness of female prospective teachers as compared to male prospective teachers. It further added that B.Ed. programme was equally effective in enhancing teaching aptitude and attitude towards teaching of both female and male prospective teachers.

Prasad (2007) studied the influence of motivation, competence and aptitude of the teachers on their English teaching ability and assessed the influence of components of teaching competence, such as planning, presentation, closing, evaluation and managerial on English

language teaching ability of teachers. Stratified random sampling technique was used to select 425 teachers from 1500 teachers teaching English language classes in West and East Godavari and Krishna district of Andhra Pradesh. For data analysis AM, SD, t-test, ANOVA, correlations, multiple regression techniques were used. The findings of the study were, there was a highly significant positive correlation between teaching aptitude of teachers and teaching competence. Teaching aptitude of teachers does predict their English language teaching ability. Various sub-components of teaching aptitude, namely professional information, interest in profession and attitude towards children do predict the English language ability of teachers.

Panda and Pradhan (2009) studied the professional competency, commitment, classroom teaching performance and aptitude towards teaching of B.Ed. students of three models of teacher education programs by selecting the sample randomly on the basis of one year B.Ed., two years B.Ed. and four years B.Sc. B.Ed. program. It was a descriptive survey and teaching aptitude scale was used as a tool along with other tools. The teaching aptitude showed significant positive relationship with classroom teaching performance for the pupil-teachers who had exposure to two years and four years B.Ed. training program than those who had the experience of only one year B.Ed. course.

Augustine (2010) studied the teaching aptitude, competency, academic background and achievement in Educational Psychology. A sample of 200 student teachers from 5 colleges of teacher education in Kottayam Revenue district, Kerala were taken for the study. Teaching Aptitude Scale (TAS) structured and validated by M/s. Psycom Services was used for the study. The findings of the study were: there was a significant relationship between teaching competency and teaching aptitude of student teachers. There was no consistent positive relationship between academic background and teaching of student teachers. There was no significant difference between men and women student teachers in teaching competency and teaching aptitude.

Sajan (2010) studied the teaching aptitude of student teachers with respect to their gender and academic achievements at the graduate level examination. The sample for this study was selected by stratified random sampling from the teacher education institutions in Malabar area of Kerala. Teaching Aptitude Test Battery (TATB) developed by Singh and Sharma (1998)

was used to measure aptitude in teaching. The results showed that majority of students had ample teaching aptitude. The female students were found to be significantly better than their male counter parts in teaching aptitude test. The academic achievements at graduate level examination had no substantial relation with aptitude in teaching.

Garg and Gakhar (2011) wrote an article titled as ‘Re-searching Secondary Teacher Trainees in Distance Education and Face-to Face Mode: Study of their Background Variables, Personal Characteristics and Academic Performance.’ The investigation was conducted to describe and compare the background variables, personal characteristics and academic performance of secondary teacher trainees in distance education and face-to-face mode. The purpose of this study was to make descriptions of: four background variables, namely, age, sex, marital status and socio-economic status; five personal characteristics, namely, styles of learning and thinking (ten learning styles and thinking styles each, related to right and left hemispheres), study habits with its eight areas, achievement motivation and its fifteen factors, attitude towards teaching along with its six areas and perception about B.Ed. course with its seven sub-measures; and three variables of academic performance of secondary teacher trainees in distance education and also to compare the specific variables with their counterpart teacher trainees in face to face education. The investigation was advanced by using descriptive survey method. A sample of 200 distance teacher trainees was extracted from those enrolled in B.Ed. at University School of Open Learning, Punjab University (PU), Chandigarh and 200 on-campus trainees were selected from the three colleges of education affiliated to PU, Chandigarh. Random sampling technique was adopted for selection of the sample. The tools used for this study included Socio Economic Status Scale (Bhardwaj, 2001), Styles of Learning & Thinking- SOLAT tool (Venkataraman,1993), Deo-Mohan Achievement Motivation Scale (Deo and Mohan, 1985), Study Habit Inventory (Palsane and Sharma, 1995), Teacher Attitude Inventory (Ahluwalia, 1978) and Perception about B.Ed. Course Scale developed and standardized by the investigator. The findings demonstrated that teacher trainees in distance education differed from their counterparts from the regular stream (face-to-face education) in age, marital status, sex and socio-economic status. Distance trainees outperformed the on-campus trainees on their preference for left-hemispheric styles of learning and thinking, budgeting time, learning motivation, overall study habits, academic motivation, attitude towards education, work methods, interpersonal relations, and on their

perception about relevance of course content of theory papers in B.Ed. The results of the study pointed towards the need to rethink the activities that are to be promoted during personal contact programmes. In view of the results of attitude towards teaching profession as being a potent predictor of academic performance, some kind of seminars, group discussions, workshops need to be organized to nurture the favourable attitude of distance trainees towards teaching. Attempt may also be made to bring attitudinal changes, if so required. The findings that budgeting time, conditions for study and interpersonal relations serve as strong predictors of success in teacher training may be considered both by the teacher educators and guidance workers in the field to enable the distance trainees to restructure their physical environment whether at home or elsewhere for study rather than to wait for the availability of conducive environment.

Kanti (2011) conducted a study of values of prospective secondary school teachers in relation to teacher attitude and teaching aptitude with the objectives to study the levels of and relationship between values, teacher attitude and teaching aptitude of the prospective secondary school teachers. The study was limited to colleges of Education affiliated to Acharya Nagarjuna University and 10 colleges of education were selected by stratified random sampling technique from Krishna district only. The researcher used the normative survey method and the tools used were Teacher values inventory by Dr. (Mrs.). Harbhajan. L. Singh and Dr. S.P. Ahluwalia, Teacher attitude inventory by Dr. S.P. Ahluwalia and Teaching aptitude test developed by S.C Gakhar and Dr. Rajnish to measure the values, attitude and teaching aptitude of the prospective teachers. Mean, Standard deviation, One way ANOVA, C.R, Fisher F, Coefficient of correlation and Multiple correlation were employed in the analysis of the data gathered. The findings revealed that the prospective secondary school teachers did not differ in their levels of values: 14% of the total sample had low level of values, 13% of the sample had high level of values and the remaining 73% had moderate level of values. The prospective secondary school teachers differ in their levels of teacher attitude: Only 15% of the total sample had high level of teacher attitude, 14% had low level of teacher attitude and remaining 71% had moderate level of teacher attitude. Prospective secondary school teachers differ significantly in their levels of teaching aptitude: only 13% of the total sample had high level of teaching aptitude, 13% of the sample had low level of teaching aptitude and the remaining 74% had moderate level of teaching aptitude. There is no

significant relationship between values and teacher attitude of prospective secondary school teachers. There is no significant relationship between values and teaching aptitude of prospective secondary school teachers. There is a significant relationship between teacher attitude and teaching aptitude. There is no significant relationship among Teacher values, teacher attitude and teaching aptitude of prospective secondary school teachers.

Kavita (2011) studied the effect of training in classroom questioning behaviour of student teachers on teaching competence, self-concept and attitude towards teaching with the following objectives: to study the initial, at the end of training and the change in classroom questioning behaviour of student-teachers in respect of the incidence of questions, structural characteristics of questions, question delivery behaviours, question distribution behaviours, and pupils' response management behaviours of student-teachers. To compare the classroom questioning behaviours of student-teachers before and after the classroom questioning behaviours training in respect of incidence of questions, structural characteristics of questions, question delivery behaviours, questions distribution behaviours and pupil response management behaviours of student teachers with student-teachers without such training. To compare the teaching competence, self-concept and attitude towards teaching of student-teachers with and without classroom questioning behaviour training, before and after the experimental treatment. The sample constituted of 200 Hindi and Social Studies student teachers studying in the following colleges: 100 Student teachers of Dayawanti Memorial College of Education, Pada, Gurgaon; Deen Dayal Rastagi College of Education, Khandewla (Gurgaon) were allotted to the Experimental group and 100 student teachers of Chetanyadev College of Education, Bohra Kalan (Gurgaon); and Lord Krishna College of Education, Jamalpur (Gurgaon) were allotted to the Control group. The tools used were: Classroom Questioning Behaviour Observation System (Jangira), General Teaching Competence Scale by Passi & Lalita, Self Concept Test by R.K.Saraswat and Teaching Attitude Inventory (TAI) developed by S.P. Ahluwalia. For testing the significance of difference between classroom questioning behaviour variables and teaching competence scores of the control and experimental groups of student teachers 't' test (Popham, 1967) was employed on the pre-observation scores, post-observation scores and gain scores. The pre-test, post-test and mean gain scores of student teacher under control and the experimental group for Self Concept and Attitude towards teaching were also computed by using 't' test. A close analysis of the results

indicates that the experimental group student teachers asked more questions in their classroom as compared to the control group. It is also shown by these tables that the level of questions asked by the experimental group was higher as compared to the level of questions asked by the control group. The Control group asked more questions at cognitive memory level whereas the experimental group asked more questions at convergent, divergent and evaluation levels, which generate more thinking. The experimental group improved the structural qualities of their questions after CQBT more significantly than the control group. The CQBT was also found helpful in sharpening the delivery of classroom questions as also in improving the question distribution behaviour of student teachers. CQBT equally helped to improve pupil response management behaviour of student teachers. The CQBT was found to be a better strategy, than the conventional programme, of student teaching as teaching competence of student teachers was enhanced after CQBT. It was also found that CQBT was not only effective in improving the classroom questioning behaviour of student teachers, but it also helps in improving their self-concept and attitude towards teaching. The overall assessment points towards the ultimate effectiveness of CQBT and it provides a model for validation of teacher.

Singh (2011) conducted a comparative study of pre-service and in-service B.Ed. students with respect to aptitude, interest, attitude, knowledge and skill. It was a descriptive study and the sample was selected purposively. Fifty pre-service B.Ed. students of the second semester of the academic year 2010-11 from Department of Education, The Maharaja Sayajirao University of Baroda, Vadodara and thirty in-service B.Ed. students (of second year) of the academic year 2009-2011 from IGNOU, having Department of Education, Faculty of Education and Psychology of The Maharaja Sayajirao University of Baroda, Vadodara as the study centre were considered as sample for the study. Attitude scale prepared by Biswal, aptitude test prepared by Renu Mishra, Knowledge test in education, achievement test for teaching skills and interest inventory prepared by the investigator were used as tools for data collection. Mean, Standard Deviation, Standard Error of Mean and Mann-Whitney U-test were used to analyze the quantitative data. The major findings of the study were: Pre-service and In-service B.Ed. students did not differ stochastically in terms of their teaching aptitude, attitude towards teaching profession and teaching skills. The interest of In-service B.Ed. students was found stochastically larger than that of Pre-service B.Ed. students towards

teaching profession. The Knowledge in Education of Pre-service B.Ed. students was found stochastically larger than that of In-service B.Ed. students.

Yadav (2011) did a comparative study of pre-service teacher education programme at secondary stage in Bangladesh, India, Pakistan and Sri Lanka. The major objectives of the study were as follows: to identify different issues of pre-service teacher education programme at the secondary level in Bangladesh, India, Pakistan and Sri Lanka. To compare different components of pre-service teacher education programme in Bangladesh, India, Pakistan and Sri Lanka. To derive implications for overall improvement of pre-service teacher education programme in India. The sample of the study consisted of 24 Principals (6 males and 18 females), 88 (46 males and 42 females) Teacher Educators and 157 Student-Teachers (53 males and 104 females) from all the four countries. The following three questionnaires were developed to seek the information about the various components of the B.Ed. programme from Bangladesh, India, Pakistan and Sri Lanka. The first questionnaire related to Principals of the B.Ed. Institutions sought to ascertain perception of Principals about various aspects of B.Ed. programme. It consisted of 36 items related to general information of the Institutions, faculty profile, admission procedure, curriculum development, curriculum transaction and its evaluation. The second questionnaire was meant to ascertain the perceptions of Teacher Educators on the strengths and weaknesses of the B.Ed. programme and its various components. It consisted of 32 items, related to structure, duration, components of curriculum, transaction of curriculum, course evaluation, Teacher Educator professional development, etc. The third questionnaire was related to student-teachers which sought to obtain the perception of student-teachers/ teacher trainees of pre-service teacher education programme (B.Ed.) at the secondary stage. It consisted of 30 items related to the curriculum, methodology for curriculum transaction, use of Information and Communication Technology (ICT) and other facilities available in the institute, organization of co-curricular activities and evaluation system. All the three questionnaires were tried out and finalized on the basis of experts opinions. The data were collected by mailing all the three questionnaires to the B.Ed. Institutions in Bangladesh, India, Pakistan and Sri Lanka. However, less number of questionnaires were received and analyzed from Bangladesh, Pakistan and Sri Lanka from Principals (7), Teacher Educators (9) and student-teachers (19). Besides these, data from secondary sources were also used for completing the study. The data were scrutinized,

classified, compiled and analyzed. The descriptive analysis of data was carried out. The syllabus and curriculum of the B.Ed. programme from all the four countries were analyzed to validate the information provided by the respondents. The following findings and implications have been derived on the basis of the perceptions of the Principals, Teacher Educators and student-teachers on different aspects of B.Ed. Institutions from India, Sri Lanka, Bangladesh and Pakistan. The duration of the B.Ed. programme was one year in India, Bangladesh and Pakistan; however, in Sri Lanka it was three years. Most of the Teacher Educators from India, Bangladesh and Pakistan were not satisfied with the one year duration of the B.Ed. programme. The student-teachers were found weak in content knowledge in all the four countries in general and particularly in India. Graduation degree was the minimum qualification for seeking admission in the B.Ed. programme, the admissions in the B.Ed. programme were made on the merit basis. The entrance test was also conducted in some universities in India and Bangladesh. But the teaching aptitude was not considered as criteria for admission in the entrance examination. The B.Ed. curriculum was revised during 1998, 2002, 2005 and 2009 in India, Sri Lanka, Pakistan and Bangladesh respectively. In all the countries, no definite role was specified for the involvement of the faculty in formulation and revision of B.Ed. curriculum and syllabus. The compulsory theory papers prescribed in the B.Ed. programme were almost common in all the four countries. The teaching of different subjects in the B.Ed. programme laid more emphasis on the theory courses than practical work. Besides this, there was no link between the curriculum of the B.Ed. course and the school curriculum. Moreover, the curriculum is lengthy and content in many subjects are not required. It was found that the practical activities were very useful for making an effective teacher. It developed confidence among them. The necessary knowledge and skills related to subject matter were inculcated by these activities. The student-teachers of India expressed that performing and visual arts increased their confidence, brought hidden talent outside and made them tension free. It also helped in developing their personalities. Performing and visual arts made teaching learning interesting. The computer labs were established in the Institutions. The computer literacy varied between 40 to 75 per cent in all the four countries. Practice Teaching: In India, practice teaching was organized in all types of schools including government, private, aided and own demonstration schools during first and second half of the year. In all the four countries, student-teachers were prepared for practice teaching before

sending them to actual classroom situation. For preparing student-teachers, demonstration lessons by faculty members or outside experts were arranged. Simulated and Micro-Teaching lessons were organized. About twenty schools were selected by all the four countries for practice teaching. The student-teachers expressed that two subjects were undertaken for the practice teaching. In India, twenty-four lessons from two subjects were delivered during forty-five days by student-teachers while, forty-five lessons were delivered during ninety days in Bangladesh. In Pakistan, eleven lessons were delivered during thirty days duration. The minimum duration of school experience programme was 35-60 days in India, Sri Lanka and Bangladesh, whereas maximum was 90 days in Pakistan. In Sri Lanka, minimum 5-6 lessons were required to be delivered during practice teaching. There were many weaknesses in the system of practice teaching. Teacher Educators from India, Bangladesh and Pakistan revealed that the duration of the practice teaching was less. It was not supervised properly. The school authorities also did not cooperate fully in organizing the teaching practices in their schools. It was difficult to observe the natural behaviours of student-teachers during this programme. Lecture method was frequently used by the Teacher Educators in all the four countries for curriculum transaction. Demonstration methods and group discussions were held on some occasions. Discovery and problem solving methods were used rarely. ICT was not used for curriculum transaction. There was no policy for the professional development of the Teacher Educators. They were only deputed in orientation and refresher courses organized by national Institutions like UGC and NCERT in ad-hoc manner. Many research projects in the area of school and teacher education were completed during 2004-07 in India and Pakistan. In India, innovations on practice teaching, educational technology, and instructional strategies were carried out, whereas innovations on ICT and staff development were undertaken by Pakistan. No innovations were reported by Sri Lanka and Bangladesh countries. Many weaknesses were reported in the B.Ed. programme from all the four countries. It was reported that more emphasis was given on the teaching of theory courses. Infrastructure facilities were not adequate. Student-teachers were not attending the classes on regular basis. New and Innovative methodologies were not used for transacting the curriculum.

Parvathi (2012) studied the metacognition, teaching competency and attitude towards teaching profession of prospective mathematics teachers. The investigator, in this study, adopted the survey method of research. The population consisted of prospective mathematics

teachers and 500 student teachers were selected as sample by using double stage random sampling technique. Metacognition tool, Teaching competency scale and Attitude scale towards teaching profession were the tools used. The statistical techniques applied were percentage analysis, t-test, chi-square analysis, correlation, multiple correlation, factor analysis and graphical representation. It is found out from this study that the meta-cognition of prospective mathematics teachers is moderate (72.40%), the teaching competency of prospective mathematics teachers is moderate (68.20%) and the attitude of prospective mathematics teachers towards teaching is moderate (70.40%). There is significant positive correlation between teaching competency and meta-cognition of prospective mathematics teachers and meta-cognition and attitude of prospective mathematics teachers towards teaching profession. There is no significant positive correlation between attitude of prospective mathematics teachers towards teaching profession and teaching competency. There is significant influence of meta-cognition and attitude towards teaching profession on teaching competency of the prospective mathematics teachers.

Patil (2012) conducted a study of general mental alertness, emotional intelligence, personality, interest in teaching and attitude towards teaching profession in relation to academic achievement of prospective teachers. The objectives of the study was to study the significant relationship among general mental alertness, interest in teaching, emotional intelligence, attitude towards teaching profession and personality with respect to their academic achievement of prospective teachers. The following standardized research tools were used: General Mental Alertness Test by Srivastava (2006), Kakkar Interest in Teaching Scale (KITS) (1985), Emotional Intelligence Scale by Hyde, Pethe and Dhar (2007), Attitude Scale towards Teaching Profession by Umme Kulsum (2008), Eysenck Personality Inventory (1975) and Academic Achievement (Total percentage of marks of previous academic year). Cluster sampling technique was employed. The data was collected from the 350 prospective teachers of college of education of Bijapur and Bagalkot districts. The tools were personally administered by the researchers to the respondents. The data collected was subjected to statistical analysis by employing: Descriptive Analysis, Differential Statistics, Correlation Analysis and Multiple Regression Analysis. Major findings of the study were: the general mental alertness, interest in teaching, emotional intelligence, attitude towards teaching profession and personality of prospective teachers increases with increase in their academic

achievement and they can be used as predictors of academic achievement of prospective teachers.

Kumari (2013) did an assessment of the efficacy of IGNOU B.Ed. programme in the context of the academic and professional performance of teacher trainees. The objectives of the study were to find out the curricular potential of IGNOU B.Ed. programme for imparting quality teacher education and attitude of teacher trainees towards the IGNOU B.Ed. programme; to find the extent of use of activities in the IGNOU B.ED. programme for improving the academic performance and professional development of teacher trainees; to identify the teacher efficacy of teacher trainees of IGNOU B.Ed. programme; to find the difficulties experienced by teacher trainees while engaging in the activities in the IGNOU B.Ed. programme for their academic and professional development; and to identify measures to enhance the availability, accessibility and transfer of academic and professional aspects of the IGNOU B.Ed. programme to the teacher trainees on the basis of the findings of the research. It adopted the survey method of research. The population comprised of those student teachers who were doing their B.Ed. programme in Indira Gandhi National Open University, New Delhi through distance mode and working as a teacher in a school. The sample of the present investigation comprised of 480 student teachers doing their B.Ed. programme in Indira Gandhi National Open University, New Delhi, covering all the groups selected randomly from various Programme Study Centres of IGNOU in Kanyakumari district of Tamilnadu and Kollam district of Kerala. The tools used were: Quality of Curriculum Scale, Attitude towards IGNOU B.Ed. programme Scale, Multimedia Usage Scale, Teacher Efficacy Scale and Interviews with experts and persons associated with Programme Centres of IGNOU regarding the feasibility of the B.Ed. Programme. Various statistical techniques were used to analyze the collected data such as descriptive analysis, t-test, F test, correlation analysis, and regression analysis. The findings exposed that the training received through the curriculum of the programme does not influence their teaching competency alone rather it has the ability to influence their attitude, usage of modern technological devices and ability to manage their classrooms effectively without hurting their wards. The quality of curriculum of IGNOU B.Ed. programme, attitude of student teachers towards IGNOU B.Ed. programme, multimedia usage of student teachers and their teaching efficacy is just average which indicates that it needs more improvement. There is significant relationship between the perception of quality

of curriculum of B.Ed. student teachers of IGNOU and their attitude towards IGNOU B.Ed. programme, multimedia usage and their teacher efficacy. Attitude towards IGNOU B.Ed. programme and multimedia usage of student teachers of IGNOU were found to be significant predictors of the perception of quality of B.Ed. programme of IGNOU, whereas the teaching efficacy of student teachers was found to be not the significant predictors of perception of quality of B.Ed. programme of IGNOU.

Gunjal (2014) studied the influence of practice teaching on self-concept, emotional adjustment and attitude towards teaching profession of secondary school teacher trainees of Kerala state. The objectives of the study were to find out whether practice teaching has any influence upon the self-concept, emotional adjustment and attitude towards teaching profession of secondary school teacher trainees. The study is experimental with single group pre-test – post-test design. The sample was drawn from the population of secondary school teacher trainees from different teacher education colleges of three universities of Kerala. Stratified random sampling technique was adopted for the selection of 501 samples. Tools used were: Self-Concept Scale, Emotional Adjustment Scale, Teacher Attitude Scale and Socio-Economic Status Scale. The t-test and ANOVA were employed to know the significant difference between mean scores. It was found that practice teaching was not promoting the self-concept of secondary school teacher trainees. Practice teaching had significant, positive influence on emotional adjustment and attitude towards teaching profession of Secondary school teacher trainees.

Seetharaman (2015) conducted a study of teaching effectiveness of B.Ed. student teachers in relation to teaching aptitude, hemisphericity, cognitive style and academic proficiency. Normative survey method was employed. Study was conducted in Chennai and Kancheepuram districts of Tamil Nadu, India. Three colleges of Education were selected for the pilot study and 22 colleges of Education were selected for the final study. Incidental or volunteer sampling techniques were adopted for selection of samples. Data were collected personally by visiting each college and meeting the Heads of Institutions, Principals, Head of the Departments, Professors, Assistant Professors and 820 B.Ed. student teachers who were present on a particular day of data collection in the optional subject classroom by simple random sampling technique. The dependent variable was teaching effectiveness and the

independent variables were teaching aptitude, style of learning and thinking (SOLAT), cognitive style (Group embedded figure test), Cognitive style Inventory-systematic style, Intuitive style and Academic Performance Test. The tools used for this study were Teaching Effectiveness Scale (Umme Kulsum 2000), Teaching Aptitude Scale (S.C.Gakkar and Rajnish 1994), Style of learning and thinking (SOLAT) Scale (Venkataraman and Paul Torrance 1988), Cognitive Style (Witkin Embedded Figure Test 1964), Cognitive Systematic Style and Intuitive Style (Praveen Kumar 2004) and Academic Performance Test (Investigator 2010). The correlated data from the sample were subjected to 5 stages of analysis namely, descriptive differential 't' test, differential 'F' test, correlation co-efficient and Multiple Regression and discriminate analysis. Major findings were: The student teachers in general had average teaching effectiveness. There was significant difference between Teaching Aptitude, Hemisphericity, Systematic style and Academic Performance with respect to their levels of Teaching effectiveness and the remaining two independent variables (cognitive style and intuitive style) do not differ significantly. The student teachers in general had below average teaching aptitude. The correlation for the entire sample of teaching effectiveness was positive with respect to their teaching aptitude, hemisphericity, systematic style, intuitive style and academic performance. The correlation for the entire sample of Teaching Aptitude was positive with respect to their hemisphericity, cognitive style and academic performance.

Jabeen (2017) conducted a study on teaching aptitude and academic achievement of prospective teachers pursuing B.Ed. course from the distance and the regular mode with the objective to find out the significant difference between the prospective teachers of distance and regular mode in accordance with their teaching aptitude and academic achievement. Purposive sampling was done by taking 100 B.Ed. students of the distance mode and 100 in regular mode from Magadh University, Gaya town. Survey method was used. Tools used were Teaching Aptitude Test Battery (TATB) by Dr. R.P. Singh (Patna) and Dr. S.N. Sharma and self constructed Academic Achievement Test for prospective teachers. Data were analyzed using T-test, Correlation, Standard deviation, Mean and SPSS. Findings revealed that there was no significant difference between the prospective teachers of distance mode and regular mode in accordance with their teacher aptitude and academic achievement.

2.4.0 IMPLICATIONS OF THE REVIEWED LITERATURE FOR THE PRESENT STUDY

From the reviewed studies it was observed that the review brings out significant quantum of literatures available and also reveals significant gaps in building up an autonomous body of cumulative knowledge which future researches could focus on. Attention has been focused on different areas of teacher education programme like admission process, teaching- learning process, evaluation process and professional attributes of teacher trainees such as attitude towards teaching profession, interest towards teaching profession, teaching skills, teaching aptitude and knowledge in education.

It was observed from the reviewed literature that the studies conducted by GCPI (1976), GCPI (1977), Raina (1981), Patil (1984), Dave (1987), Mathur (1987), Singh (2004) etc. were all related to attitude of pre-service or serving teachers towards teaching with respect to supervisory or peer feedback, microteaching under simulated and real condition, teachers belonging to different disciplines, intelligence and interest etc. GCPI (1976) concluded that feedback affects attitude and it can be inculcated through training. Raina (1980) found that there was a significant difference in the MTAI scores between the total in-service teachers and total student teachers. MTAI scores were in favour of student teachers. Patil (1984) revealed that correlation between attitude and achievement ($r = 0.16$) were positive and significant at .01 level of significance. Studies carried out by Buch (1959), Mehrotra (1973), GCPI (1976), Kaul (1977), Verma (1979), Kaur (2007), Kavita (2011) and Gunjal (2014) revealed the similar results that training had favourable effect on the attitude of teacher trainees towards teaching profession. Other studies related to attitude were done by Saran (1975), Sinha (1980), Sundarajan et al (1991), Devi (2005), Viswanathappa (2005), Kanti (2011), Ahmet, Canan (2009), Mehmet et al (2009), Parvathi (2012), Patil (2012) and Demir (2016). Saran (1975) found positive attitude of student teachers and interest was positively related with attitude towards the teaching profession and level of education. Sinha (1980) came up with a conclusion distinct from others that trained teachers were better than untrained teachers in professional efficiency but there was no significant difference between two categories of teachers in their attitude towards the teaching profession. Sundarajan et al (1991) reported that 95% of B.Ed. students of university had a favourable attitude towards teaching and women student teachers were found to have better interest in teaching as

compared to men student teachers. Viswanathappa (2005) concluded that attitude of student teachers towards teaching significantly predicted the teaching competence of student teachers in lesson planning, presentation of lesson, closure of lesson, evaluation and teaching competence in total. Kanti (2011) revealed that only 15% of the prospective secondary school teachers of Acharya Nagarjuna University had high level of teacher attitude, 14% had low level of teacher attitude and remaining 71% had moderate level of teacher attitude. Parvathi (2012) found the attitude of student teachers moderate. Patil (2012) concluded that attitude increases with increase in their academic achievement and they can be used as predictors of academic achievement of prospective teachers. Demir (2016) concluded that majority of pre-service teachers had positive attitude towards teaching profession.

Studies conducted by Sharma (1984), Goel et al (2007), Prasad (2007), Panda and Pradhan (2009) and Jabeen (2017) were related to aptitude of pre-service or in-service teachers in teaching. Some studies revealed that pre-service or in-service student-teachers had favorable attitude towards teaching and high aptitude in teaching and some studies revealed that they had unfavorable attitude towards teaching and low aptitude in teaching. Other studies related to aptitude were carried out by Adaval (1952), Sharma (1971), Patil and Deshmukh (1993), Kulshreshtha and Heeranandini (2006), Sharma (2006), Kaur (2007), Augustine (2010) and Sajan (2010). Studies done by Adaval (1952) and Patil & Deshmukh (1993). Study conducted by Sajan (2010) revealed that women teacher trainees had better aptitude for teaching than men. Augustine's (2010) finding contrasted with Sajan's finding that no significant difference was found between men and women student teachers in their aptitude, where both the studies were done in the same year at the same place i.e. Kerala. Sajan used Teaching Aptitude Test Battery developed by Singh & Sharma (1998) whereas Augustine used Teaching Aptitude Scale structured and validated by M/s. Psycom Services.

Sharma (1971) concluded that teaching aptitude is the sound predictor of teacher effectiveness. Kulshreshtha & Heeranandini (2006) used R. P. Gupta's differential aptitude test for four fold educational activities: teaching, guidance, management and research sectors of education. They found that prospective teachers had higher aptitude in teaching than other three aptitudes and general teaching competence and professional interest of pupil teachers significantly affect their teaching aptitude. Studies conducted by Sharma (2006), Prasad

(2007), Augustine (2010) and Seetharaman (2015) revealed that teaching aptitude of the pupil teachers was significantly correlated with their general teaching competency. Goel et al (2007) came up with an important finding that the mean achievement score of the in-service teachers on teaching aptitude was found significantly higher than that of the pre-service teachers. Kaur (2007) concluded that B.Ed. programme enhanced teaching aptitude of prospective teachers. Panda & Pradhan (2009) discovered that the teaching aptitude showed significant positive relationship with classroom teaching performance for the pupil teachers who had exposure to two years and four years B.Ed. training programme than those who had the experience of only one year B.Ed. course.

Kanti (2011) found that prospective secondary school teachers differed significantly in their levels of teaching aptitude: only 13% of the total sample had high level, 13% had low level and the remaining 74% had moderate level of teaching aptitude.

Sharma (1984) uncovered that about 75% of student teachers of ten teachers' colleges of three universities of Rajasthan were below average in their teaching aptitude, whereas, Seetharaman (2015) again unearthed that student teachers of two districts of Tamil Nadu in general had below average in their teaching aptitude.

Studies conducted by Patel (1976), Kanwal (1979), George and Anand (1980), Jangira, Singh & Mattoo (1981), Singh (1981), Das et al (1982), Kumar (1998) and Ellison (2009) were related to teaching skills and mostly experimental in nature. All the studies together emphasized on the same thing that training in teaching skills using micro-teaching technique brought about significant improvement in teaching skill competence and general teaching competence. In addition to this Kanwal (1979) found that feedback modified classroom behaviour increased the teaching efficiency of student teachers. Kumar (1998) discovered that trained and untrained teachers were equally effective in ten teaching skills. The researcher couldn't locate any study done in the area of teaching skills after Kumar (1998), in India.

Studies conducted by Buch (1975), Sinha (1982), Das (1991) and Patted (1992) were related to evaluation process. Buch (1975) pointed out that innovations in the Department of Education, The M.S. University of Baroda were undertaken in evaluation- transfer of power from external to internal and making whole evaluation process a continuous one whereas Sinha (1982) disclosed that the evaluation process in Bihar has remained traditional. Das

(1991) compared the evaluative procedures of secondary teacher training institutes in Gujarat State and found that diversity exists in the evaluation process in teacher training colleges; majority of institutes followed a mixture of internal and external evaluation process. It suggested that an external cum internal marking system with continuous evaluation and the semester system should be adopted in all teacher training colleges.

Patted (1992) found that for assessment of annual lessons, the mean of two examiners were taken into consideration in the colleges of education in the universities of Karnataka State.

Studies conducted by Shukla (1969), Sharma (1973), Kohli (1974), kakkad (1983), Bhatia (1987), Bhosale (1992), Walia(1992), Behari (1998) and Erol Karaca(2008) were related to curriculum of teacher education. Shukla (1969) estimated the requirements for the years 1969-74 i.e. relating the methodology of teaching school subjects to the needs of handling different types of classes, orienting the teacher education programme to the modern trends of Indian society and modernizing and reorganizing teacher education programme at secondary and higher secondary level. Sharma (1973) discovered that out of 30 Indian universities, 27 had not explicitly stated aims of compulsory papers, the number of compulsory papers ranged between 4 to 6 and variation from one university to another without sound logical base, no uniform policy for titles of these courses. Kohli (1974) came up with the suggestions that theory should be reduced to 50%. Block practice teaching could better be replaced by practice of internship under the charge of practicing school. Need was felt to extend the duration of training to two years instead of the existing one year system and to organize specified co-curricular activities on the basis of recommendations of Education Commission (1964-66). This coincides with today's demand and reality of teacher training institutes. Bhatia (1987) evaluated new B.Ed. curriculum of colleges affiliated to University of Bombay. The study indicated that the ratio of theory and practice should be 50: 50 and practice teaching along with other practical work was the most important part of B.Ed. curriculum. Bhosale (1992) found that majority of topics were common to teacher education curriculum of all the universities in Maharashtra except variation in topics with respect to some papers. Number of lessons to be taught by student teachers was not same in all universities. Some optional papers and nature of practical work were all different with respect to curricula. Walia (1992) reported that curriculum of secondary teacher education in northern India lacked uniformity and clear cut definition. Four years integrated B.Ed. programme was preferred to the existing one year

B.Ed. programme. Provision for optional paper ranged from 4 to 39 papers in different universities, out of which only one paper was to be selected. Behari (1998) found that methodology of teaching paper was more helpful than the foundation papers taken together in developing abilities especially skills at CIE, University of Delhi. Theory- practice link was missing. Dramatics as an activity and discussion as a mode of transaction of programme was helpful.

Studies by Srivastava (1982), Srivastava and Kanti Mohan (1982), Hemabujam (1983), Pugazhenthii (1991), Srivastava et al (1999), NCTE (2001) and NCTE (2001) were done on teacher education programmes. Srivastava (1982) and Srivastava and Kanti Mohan (1982) together found that coordination between department, schools and community was lacking. There was little uniformity in organizing practice teaching and seasonal work in the various departments. There was no significant contribution of the programme in developing teaching aptitudes among trainees. The teacher educator and student-teacher ratio was 1:14, which was higher than prescribed by the government. 60% of the departments did not have Educators in all school subjects. Not all of them had double post graduate degree, less than 10% of them had a doctorate degree. Admission rules had many drawbacks and average working days were only 118. Hemabujam (1983) unearthed that the comprehensive B.Ed. curriculum was not effectively implemented due to time shortage in colleges of education in Tamil Nadu. Pugazhenthii (1991) studied in detail the B.Ed. and M.Ed. programme through correspondence system in Madurai Kamaraj University and found the clientele heterogeneous. Students were not very satisfied with the system due to correction of assignment without remark or comment and difficulty in getting permission from heads of schools for practice teaching. Srivastava et al (1999) found that lesson planning, teaching with aids and using various teaching skills constituted the prominent pattern of practice teaching in RIEs, IASE and University Departments of Education. Preparation of achievement test, textbook analysis and teaching material constituted majority of assignments given. NCTE (2001) discovered that teacher education institutions in Assam lacked minimum basic facilities and qualified staff. It was urgently necessary to introduce compulsory pre-service and regular in-service training of teachers. NCTE (2001) uncovered that there was a dearth of lecturers in subjects like

philosophical and psychological foundation of education in Andhra Pradesh's teacher education institutions. Therefore, there was need to recruit staff members.

Studies related to knowledge in education were carried out by Sharma (1970), Sinha (1980) and Tharyani (1986). Sharma (1970) found that the achievement in theory subjects do not take into account the important variables like personality of the teacher, handwriting, expression etc. which affect teaching. The result showed positive but low correlation between achievement in theory subjects and skills of teaching. Sinha (1980) discovered that in the sphere of professional efficiency, the trained teachers were better than the untrained teachers in the knowledge of the subjects and teaching skills. Tharyani (1986) found that B.Ed. students' knowledge (academic achievement) in their respective subject area was found to be the best predictor of teacher effectiveness.

Studies comprehensive in nature covering different dimensions of teacher education programme were carried out by Singh (1981), Kavita (2011), Patil (2012), Kumari (2013) and Seetharaman (2015). Singh (1981) discovered that the integration training through summative model of general teaching competence was helpful to student-teachers in achieving better teaching competence and effectiveness. There was positive influence on the teacher's performance of immediate feedback. The micro-teaching technique in the controlled laboratory environment as well as the reality of bona-fide teaching was quite effective. Kavita (2011) revealed that CQBT was found not only effective in improving the classroom questioning behavior of student teachers but also helped in enhancing their self concept and attitude towards teaching. Patil (2012) unearthed that interest in teaching, attitude towards teaching profession and personality of prospective teachers increases with increase in their academic achievement and they can be used as predictors of academic achievement of prospective teachers. Kumari (2013) uncovered that the training received through the curriculum of the programme does not influence their teaching competency alone rather it has the ability to influence their attitude, usage of modern technological devices and ability to manage their classrooms effectively. There is significant relationship between the perception of quality of curriculum of B.Ed. student teachers of IGNOU and their attitude towards IGNOU B.Ed. programme, multimedia usage and their teacher efficacy. Seetharaman (2015)

reported that the student teachers in general had average teaching effectiveness and below average teaching aptitude. The correlation for the entire sample of teaching effectiveness was positive with respect to their teaching aptitude and academic performance. Most of the studies had been done recently and differed from each other.

There were only two studies conducted by Sundarajan et al (1991) and Patil (2012), which were related to interest towards teaching profession. Sundarajan et al (1991) discovered that women student teachers were found to have better interest in teaching as compared to men. Patil (2012) found that interest in teaching of prospective teachers increased with increase in their academic achievement and it can be used as predictor of academic achievement of prospective teachers.

There were only four studies which were comparative in nature and conducted by Goel et al (2007), Garg & Gakhar (2011), Singh (2011) and Yadav (2011). Goel et al (2007) found the mean achievement score of the in-service teachers on teaching aptitude significantly higher than that of the pre-service teachers. Garg & Gakhar (2011) discovered that the distance teacher trainees outperformed the on-campus trainees on their preference for left-hemispheric styles of learning and thinking, budgeting time, learning motivation, overall study habits, academic motivation, attitude towards education, work methods, interpersonal relations and on their perception about relevance of course content of theory papers in B.Ed. Singh (2011) found that Pre-service and In-service B.Ed. students did not differ stochastically in terms of their teaching aptitude, attitude towards teaching profession and teaching skills. The interest of In-service B.Ed. students was found stochastically larger than that of Pre-service B.Ed. students towards teaching profession. The Knowledge in Education of Pre-service B.Ed. students was found stochastically larger than that of In-service B.Ed. students. Yadav (2011) revealed that the duration of the B.Ed. programme was one year in India, Bangladesh and Pakistan; however, in Sri Lanka it was three years. Most of the Teacher Educators were not satisfied with one year duration of the B.Ed. programme. The student-teachers were found weak in content knowledge and the compulsory theory papers prescribed in the B.Ed. programme were almost common in all the four countries. The teaching aptitude was not considered as criteria for admission in the entrance examination. The teaching of different

subjects in the B.Ed. programme laid more emphasis on the theory courses than practical work. Besides this, there was no link between the curriculum of the B.Ed. course and the school curriculum. It was found that the practical activities were very useful for making an effective teacher and developing confidence among them.

Summarizing the research studies cited above it could be inferred that teaching effectiveness depends on the content knowledge of the subject as well as the generic pedagogical knowledge. In addition to this teaching effectiveness seems to be significantly influenced by teacher characteristics like teaching aptitude and attitude, interest in teaching profession, proficiency in teaching skills and competent knowledge in education.

It was observed that majority of the studies were survey in nature and conducted with distinct objectives and focus. Mostly the studies were done on pre-service student-teachers doing B.Ed. through regular mode. Mainly readymade tools were used to measure teaching attitude such as Teacher Attitude Inventory by Ahluwalia (1978), Minnesota Teacher Attitude Inventory, Teacher Attitude Inventory prepared by CASE and to measure teaching aptitude-Test of Aptitude by Wallace, Teaching Aptitude Test by Pandey, Teaching Aptitude Scale structured and validated by M/s. Psycorm services, Teaching Aptitude Test Battery developed by Singh and Sharma (1998) and Teaching Aptitude Test developed by Gakhar and Rajnish were used. The knowledge in education of B.Ed. students was assessed by evaluating their academic proficiency. Only two studies were done on interest in teaching profession and that too with a gap of eleven years. No study was conducted in the area of teaching skills after Kumar (1998) in India and that too was done after 16 years. Very few studies were done on in-service student-teachers doing B.Ed. through distance mode.

Different data analysis techniques were used depending on the type of collected data and the type of studies conducted. Data were analyzed by using mean, standard deviation, t-test or Mann Whitney U-test. Frequency and percentage analysis was used for analyzing quantitative data. Mostly the studies were done on either attitude or aptitude and seldom on interest, knowledge or skills. No study was found on all these aspects together. The studies were done either on pre-service or in-service B.Ed. student-teachers or on serving teachers and rarely on both together. Though there was a study conducted by the researcher comparing the two systems of teacher education i.e. B.Ed. through regular and face-to-face mode but it was with

a small sample and the study was at M.Ed. level. The investigator did not come across any study, which had conducted a comparative study of pre-service and in-service secondary teacher education programme. So the need was felt for the present study.

The plan and procedure of the study is presented in detail in Chapter III.