CHAPTER II

REVIEW OF RELATED LITERATURE
The teacher plays a significant role in the teaching learning process and makes immense contribution in fulfilling the goals of education. The analysis of a person’s perception in a classroom situation shows that a number of variables affect that perception of the teachers. A variety of innovatory trends have emerged in the field of teacher-education during past years viz (i) micro teaching (ii) team-teaching (iii) simulated teaching (iv) classroom interaction analysis system (v) models of teaching etc. However, the scenario to teacher education has been by and large traditional and stereotyped. The curriculum teacher education has been based on theoretical planks rather than trainee oriented. Hence the review of related literature has been made to evolve a historical perspective of teacher education and to highlight innovative methods used along with its impact on teacher behaviour. Keeping in view the limitations of the present study, the review of related researches has been broadly classified into four sections: pre-service, in-service; correlates of teacher effectiveness; and evaluation of in-service teacher education programmes.

2.1 Pre-service Teacher Education

A brief account of some pertinent researches pertaining to pre-service teacher education programmes is given as under:

Bhatt (1966) studied the Kapasan Scheme of Improvement in teacher training and found that as a result of the training, there was improvement in content, lesson planning and
standard of teaching. The pre-service teacher trainees were found to be encouraged to teach in a planned manner.

Verma (1979) in an evaluative study of teacher training found that the teacher training programme was a catalyst of change in the professional attitudes of teacher trainees. Further, the teacher training programme was very effective for attitudinal change of those teacher-trainees who had got pre-training teaching experience of one year or less.

Banga (1982) in a study found that training programme in physical education is a useful and modifying experience for trainees and improves their personalities and physical fitness. Further, it was found that the training programme needs to be modified and enriched, elements which act negatively have to be eliminated and substituted with components which have positive effect.

Patel (1983) conducted a comparative study of prospective and in-service high school teachers have a more favourable attitude towards the teaching profession, child-centred practices and possess less favourable attitude towards the pupils in and outside classroom. They have a more positive attitude towards student-teachers of their college than the in-service teachers have towards their permanent colleagues.

Gopalacharyulu (1984) studied the relationship between certain psycho-sociological factors and achievements of student-teachers in the teacher training institutes of Andhra Pradesh. The major findings of the study were: socio-economic status and caste influenced all the three variables, namely, theory, practical and total achievement. Attitude towards teaching profession and attitude towards training influenced the theory and total achievement in a significant manner. Age and locality were found
to have significant influence on the theory and achievement of student-teachers.

Dogra (1986) studied the effect of training in concept development strategies upon classroom communication behaviour patterns and it was found that the student teachers trained in the use of Content Analysis System (CAS) showed a significant increase in interlinings, concrete examples, negative examples, amplification and vivid categories. Simultaneously, they showed a decrease in the use of black-board, naming, general examples, abstract examples, personal examples. Teachers trained in the analysis of content communication could better engage themselves in self-evaluation. The student-teachers trained in CAS presented the content by using different types of examples, by enlarging the focus of attrition, by relating or concentrating two or more things.

Ekbote (1987) studied the development of a strategy for integration of skills in teacher training. It was found that: (i) The integration strategy was found effective in terms of the improvement, it made in the student teacher’s performance in class-room teaching. (ii) All the seven variables pertaining to the student teacher, viz., qualification, teaching experience, availability of study time, academic achievement, skill comprehension, attitude towards teaching and attitude towards micro-teaching influenced the improvement in classroom teaching performance through the strategy. The outcome of the study is fully tried out and validated strategy for integration of teaching skills with instructional materials and other software. They have been developed taking into consideration the organizational constraints in a typical teacher-training programme in India. Hence, the study provides a workable model.
for skill integration, which can be incorporated in practice teaching programme of any Indian teacher training institution.

Devi (1988) found that the teacher education programme was non-contributory to the teaching attitude of student-teachers but did not account for influencing their aesthetic values positively as also social adjustment and health adjustment.

Bordoloi (1990) revealed in an evaluative study that the quality of entrants in these institutes was not up to the mark. Organisation and evaluation of practice-teaching was not satisfactory. Trained teachers did not get the chance to apply the techniques of teaching they learnt in the actual classroom situation as the curriculum of each class was found to be heavy and teachers were expected to complete their courses.

Bhosale (1992) evaluated the new curriculum of teacher education concluded that majority of principals, teacher-educators, student-teachers and teachers were of the view that the new curriculum was suitable for developing teaching competence among the student-teachers.

Coolican (1996) in a study investigated failure of a student teacher in pre-service teaching through the use of ethnographic, narrative, and case study methods. The study revealed focus on the fact that while this particular pre-service teacher probable would not have done differently from a pragmatic standpoint, there are nonetheless a number of areas within teacher preparation that could be enhanced for all pre-service teachers. Recommendations for future research concern the need to explore the stories of very successful pre-service teachers so that their experiences can begin to provide a flameouts for thinking
about the prior experiences, beliefs, work habits, and personal characteristics that promise success in pre-service teaching.

Hughes (1996) studied the competence of traditional and nontraditional elementary student teachers. It was revealed that nontraditional student teachers achieved at higher levels in the academic areas while traditional student teachers did slightly better in teaching performance. It was found that despite the differences in age, traditional and nontraditional student teachers share common views on reason to enter teaching profession.

Jin (1996) studied the effect of a pedagogy course and on-site reflective thinking seminars on outcomes of student teachers with varied personality types. Reflective thinking practices in this study were identified as making decisions on models of teaching, planning for instruction, monitoring and adjusting instruction. The experimental group received a series of reflective thinking seminars focused on deliberation of teaching dilemmas while the control group did not receive any treatment. The qualitative analysis of selected participant’s responses to the teaching dilemmas presented a relationship between locus of control and student teacher’s reflectivity. It was found that reflecting thinking seminars could be an effective tool to promote reflective thinking practices in student teachers.

Starr (1996) studied elementary pre-service teachers use of content specific and general pedagogical strategies in science instruction. The content specific strategies use a framework based on teaching for understanding and include content representations, the use of conceptual links, and representation of the nature of scientist’s work. The general pedagogical strategies that were examined include small and large group
structures, lesson pacing and timing, and questioning. It was revealed that by the end of the first year of teacher preparation, pre-service teachers began to use multiple content representations and those they create. They attempted to develop students' understanding of the nature of scientists' work and emphasized the nature of scientist's ventures in their teaching. They also began to enact using various teaching technique and focused on students' cognitive engagement rather than solely on student interest. In addition, the representation of science content and the nature of scientists' work were not consistent throughout the teaching. Initially, the pre-service teachers' instruction was very teacher directed, limiting opportunities for students to explore ideas independently.

Watson (1996) studied a developmental model on early field experiences in teacher education. The purpose of study was to study the effects of an early field experience on conceptual level, moral reasoning abilities, and stages of concern of undergraduate who are considering teaching as a profession. The students from one section of the introduction to teaching course participated in a sixteen-week curriculum theory. One component of the curriculum was the opportunity to serve as internship in the public schools. A comparison group from another university enrolled in the same course did not have role-taking opportunities. The pre-post test raw scores of the experimental group on the stages of concern questionnaire showed significant shifts from personal and information concerns about teaching to more complex concern about the impact of teaching on the students. The study holds implication for understanding how the early field experience can set the stage for understanding and performing in the complex school milieu in terms of designing
and implementing a wide variety of instructional strategies to meet the needs of individual students, and ability to understand the school setting from a perspective that is different from their own, and also to understand the profession of teaching in a moral context.

Ghee (1997) attempted to identify perceptions of training experiences by pre-service teachers and effects of field-based experiences on performance. The broader goal of this study was the construction of a model for teacher and education programs that would enhance the development of the thoughtful application of researched method and procedures within teacher education programmes.

Grabis-Bunker (1997) studied the stages of the cooperative teacher-student teacher relationship and the changing status roles between cooperating teacher and student teachers. Results revealed that student teachers relate to each other in various status role stages. These stages change as time and events occur during the student teacher's teaching experience. The relationship stages are classroom teacher student, supervising teacher learner, senior teacher – junior teacher, off duty teacher, visiting teacher, and classroom teacher observer. The findings stress the need to be aware of the impact, the adoption schedule has on the development of the cooperating student teacher relationship to train cooperative teachers in ways that articulate their professional knowledge.

Singh (2001) in a study on impact of DIET on value-dimensions and attitude towards teaching of student-teachers concluded that DIET programme had failed to take any worthwhile impact on value-dimensions of male and female student-teachers. The ranking order of value-dimensions
remained the same among male and female teacher trainees, and also in combined group. No change has been observed in the ranking order of value dimensions after the training programme. It has been revealed that among males, the social and religious values were found to be significant, whereas in females the theoretical, economic, aesthetic, and social values have been affected significantly. Gender differences in teacher attitude, except child centred practices area, have been indicated. The results of the study recommended that steps should be taken to review the functioning of DIET programme at all levels to maintain high standards of teaching, research, infrastructure, curriculum etc. The objectives of DIET's need to be understood clearly and steps should be taken by removing inadequacies of the DIET programme to ensure the achievement there of.

Bender (2002) designed a survey and distributed to the publicly operated colleges and universities in Massachusetts to discover the manner in which teaching faculty was using standards in the preparation of future teachers. The results of the survey allowed researcher to gain insight into the importance of standards in educating future teachers.

Brookes (2002) conducted a case study on coaching training for master teachers and its effect on student teachers. The training evaluations showed that the master teachers acquired new understandings. Both the master teacher interviews and the student teacher interviews verified a behaviour change. The master teacher did indeed use the new knowledge acquired in training with their student teachers, and the student teachers did reflect on their teaching.


2.2 In-service Teacher Education

Mohanty, Giri, and Mohanty (1976) studied the education television programmes telecast during the in-service teachers training course. It was revealed that; (i) A large majority of teacher-monitors expressed positive reactions towards all the TV programmes; (ii) On an average, 81 percent of the TV sets used for in-service training programmes functioned well; (iii) The software material of all the programmes were appreciated by 68 to 94 percent of the respondents; (iv) Dubbing of TV programmes in regional language was not appreciated; (v) Black-board work was neglected in TV programmes; (vi) Students participation in the TV lessons was not up to mark; (vii) The duration of 22.5 minutes for each lesson was not adequate; and (viii) The work of teachers trained through the programme was not supervised by inspecting officers.

Kumar and Lal (1980) studied the use of microteaching in improving general teaching competence of in-service teachers. The objective of the investigation was to study the effectiveness of microteaching in the improvement of General Teaching Competence (GTC) of in-service teachers. The single group pretest-post test design was adopted and t-test was used. It was found that (i) There was improvement in general teaching competence and in teaching skills of proving questions, reinforcement, stimulus variations, illustrating with examples, illustrating with aids, increasing pupil's participation after undergoing training through microteaching, and (ii) Microteaching helped the teacher in self-assessment of his capabilities, gains, sense of self-acceptance and self-achievement. Thus, microteaching could go a long way in
improving the general teaching competence of in-service teachers if undertaken on a large scale.

Mama (1980) concluded in a study on the impact of in-service education on teachers in the state of Maharashtra that (i) Less importance was attached to in-service teachers (ii) No effort was made to involve teachers in the planning, evaluation and follow-up of in-service programmes. (iii) The school teachers had no access to the college libraries except while participating in in-service programme. (iv) In-service programme were run as weekend courses. (v) Adequate communication did not exist between the colleges of education and the secondary schools. (vi) Control of in-service programmes was in the hands of the school principals. (vii) The teachers were sometimes prevented from attending in-service programmes by the principals and (viii) The concept of in-service education was not clear to the teachers.

Sinha (1980) conducted a study on the impact of teacher education programme on the professional efficiency of the teachers. The main findings of the study were (i) 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. (ii) The trained teachers were better than the untrained teachers about the aims of the its appropriationers, its organisation, the use of devices, presentation, questioning, answering students questions, use of blackboard and other teaching aids, eliciting students cooperation and participation, and effective closure (iii) The two categories of teachers did not differ significantly in maintaining good interpersonal relations, guiding students
participation in the activities of associations, committees, community life and co-curricular activities.

Jangira, Mattoo and Singh (1981) in a study of effect of training in training skills through microteaching on the skill competence and general teaching competence of in-service science teachers and pupil perceptions of teaching found that the means of teacher's scores on the competence to use the skills of proofing, questioning, reinforcement, stimulus variation, illustrating with examples, and increasing pupils participation, as well as the gains in the teacher's scores on general teaching competence before and after training in teaching skills using microteaching differed significantly. It implied that training in teaching skills using the microteaching technique brought about significant improvement in teaching skill competence and general teaching competence of Science teachers. Pupil's perception of the teaching of their respective teachers after training in teaching skills underwent a significant change in the desired direction.

Mukhopadhyay (1981) in an action research on alternative models of teacher training found that classroom teaching competence was not related to mobility, number of short courses attended, teaching experience and qualification, but was related to age, change proneness, attitude towards teaching, teaching load and teacher status, though if was significantly related to satisfaction with teaching and rapport with the principal.

SCERT (1981) studied the evaluation of in-service training programme for primary teachers in the selected government and aided teacher-training institutions. The objectives of the study were i) to evaluate the administrative aspect of the function of
the in-service training programme for primary teachers. ii) to evaluate the academic aspect, that is, the schedule of work and activities acquired during the in-service training programme, and iii) to study the relevance of the course content to the objectives of the in-service training programme. On the basis of a sample of 500 primary school teachers who attended the in-service training programmes and sample of 100 key personnel who were attached to the programme as co-ordinators, principals and teachers educators. It was found that:

i) The key persons of the course felt that (a) adequate staff was not there, (b) individual attention was not possible in the course, (c) science consultant were not provided, and (d) there were no books through which modern concepts could be completed for attending the training programme.

ii) The participants felt that the in-service training programme was good and helped in developing knowledge about new concepts.

iii) The participants felt motivated to implement most of the teaching strategies taught during the course.

iv) The participants felt that skills to be used during classroom teaching were not adequately practiced during the training programme.

v) Adequate stress was laid on the learning of concepts in science rather than teaching of the concepts.

vi) The laboratory techniques employed during the training programme were quite useful but could not be practiced in the schools.

vii) The participants had the feeling that the course had high academic value but it was not possible to
implement many of the activities because of the heavy syllabus in the primary classes.

Patel (1982) studied improvement of teacher's professional competency in the use of classroom techniques. It was found that the highest improvement (15%) was the abilities-capacity for co-operation of different teaching skills, ability and habit of using audio-visual aids and interest in practical and written work of the pupil. The regular observation of a teacher by his colleagues might have made him conscious of his duty and so he started taking interest in the work of the pupils. It seems that guidance of colleagues and training in the use of audio visual aids have shown their effects on the teachers' work in the classroom. The capacity for class control of the teachers and capacity of presentation also improved satisfactorily. The average improvement in teachers' professional competency in the use of classroom techniques was satisfactory.

Gogate (1983) studied training of primary school teachers in the context of universal primary education. The objective of this study was to initiate a programme of training of primary teachers, especially in view of the enlarged role they would have to assume when elementary education become universal for children in the age group 6-14. The project ultimately focused on, (i) preparation of literature for primary school teachers, which could be useful in their in-service training as also in their self training (ii) orientation of primary school teachers, teacher educators and extension officer with the help of the literature prepared in the project, and (iii) creation of social awareness among primary school teachers for the education of economically and socially backward children. It was revealed that teachers, particularly from rural areas, got aware of social, cultural and
economic needs of rural society, and understood that development was possible through education, and also that education was the main instrument of child development and that they had a social responsibility for achieving this development.

Bawa (1984) found interaction analysis effective in bringing about modification of behaviour of teachers and in its influence on the achievement and attitudes of students.

Sheth (1984) studied a strategy of developing teaching skills in secondary school teachers. He revealed that the group showed significant gain in the mean scores on behaviour coding system after their training through self-instructional strategy. Teacher self-analysis using feedback from videotape was an effective vehicle for improving teaching skills. The utility of micro teaching techniques for practicing various skills was highly appreciated by the participants. Teachers were quite satisfied with the package course so far as its educative importance was concerned. They found it quite well and self-explanatory.

Mclaughlin, Pfeifer, Swanson-Owens, and Yee (1986) found that teachers spend the majority of their time isolated in classrooms with their students. Contacts with other adults are minimal. If administrators enter the classroom, it is more likely to be for the purpose of judging the quality of the teaching provided by the teacher, not for the purpose of helping teachers improve their teaching.

Singh (1987) concluded in a study that Remedial Instructional Micro-teaching (RIM) course was effective in improving the skill of probing-questioning and demonstration, but not effective in improving the skill of explaining and illustrating with examples.
Brar (1988) in a study on impact of training programme on value dimensions of secondary school teachers found that the training programme does not have worthwhile impact on the value dimensions as well as teacher morale of secondary school teachers under training. However, the training programme is found to be having significant negative impact on the teacher attitude of secondary school teachers under training.

Kaur (1988) studied development of professional competency of Social Studies and Mathematics teachers as related to process and structure variables of educational environment in government in-service training centres. It was found that in-service education and training of teachers had significantly contributed to the development of professional competency in Punjab and the process and structure variables had a positive bearing on the product variables. Teaching competency has a positive correlation both with the process and structure variables. In-service education was useful in improving the skills of teachers and had a positive effect on their attitude towards teaching profession.

Farrell (1989) suggests that in developing countries a well-designed teacher's manual accompanying a textbook set is a very effective form of in-service training for poorly trained teachers.

Fullan (1990) pinpointed that teachers are encouraged to apply what they have learnt from their in-service experiences in their own classroom. Actually, teachers should be encouraged to “try, evaluate, modify, try again.”

Roy (1991) found the elementary teacher education programme with the elements of community involvement, both in theory and practice, to be positively affecting the change in attitude of the student-teachers towards community
involvement, and the degree of interest in teaching was responsible for accelerating the development of attitude towards community involvement in educational programmes.

Saroja (1991) studied the effect of humanistic orientation training of teachers on personal and cognitive growth of secondary school students. It was found that humanistic training of teachers did help in facilitating student's personal and cognitive growth.

Das (1992) too, found training programmes to be effective for both rural and urban teachers regarding the development of attitude towards teaching.

Sharma (1992) found in-service teacher training programmes to help them in conceptual clarity, self confidence and competencies along with change in behaviour. However, only some teachers reported the utility of such programmes in actual classroom.

Church (1995) studied an action science examination of the thoughts, feeling and beliefs of four elementary classroom teachers when working with at risk students as related to teacher expectations, student achievement and attribution theory. It was found that action science could be taught and learned through the use of direct instruction followed by assigned and volunteer practice. All of the participants demonstrated a clear understanding of Action science concepts and skills taught in isolation, but varied in their abilities to effectively use the skills during varied interactions. Each of the four teacher volunteers reported as a result of learning action science, changes in their beliefs, attitudes, and behaviour toward students identified as academically at-risk. Further, the participants developed an awareness of the incongruencies
between their espoused theories and theories-in-use as related to teacher expectations, student achievement, and attribution theory when teaching students who were academically at-risk.

De Groot's (1995) study revealed that in-service education would be more effective if teachers took responsibility for defining their professional needs and got actively involved in the development and implementation of the in-service teacher education programmes. In-service education must be an ongoing process with a clear and direct relationship to what teacher dose on a day-to-day basis. In-service education programmes must continually offer new information that has practical application for the teachers.

Kidd (1995) studied effect of standard-based mathematics in-service trainings for teachers of deaf and second language learners. It was found that the teachers' perceptions of teaching mathematics become more nontraditional after the three week programme, and that some aspects of nontraditional teaching were evident in some of the teacher observed lessons. These teachers were judged to be in a state of change with regard to their teaching of mathematics. They have experienced exposure to new information; they had changed their belief and were possibly in the process of changing their practices.

Moran (1995) conducted a case of an action research based staff development effort. One purpose of the study was to determine which training experiences assisted teachers to become innovation users. Findings suggested that an active, collegial, and supportive setting assisted teachers to learn, increases student motivation and achievement encouraged teachers to continue with innovations beyond initial use. Innovation use was hindered by: lack of time and energy,
resistance from colleagues, lack of support from administrators' lack of materials. The teachers who participated fully in action research, particularly in observation, reflection, and collaboration, did better in some of the other innovations, which included ongoing expert assistance, characterized those reaching the highest levels of use.

Stewart (1995) studied staff development programme to field test instructional design materials and assessment tools as a part of an in-service programme. The information yielded from interviews, questionnaires and observation of training sessions supported the impact of staff development efforts. General classroom teachers and trainers indicated the need for a more comprehensive summarizing of emerging training needs. The results of the study suggested that a guide to decision making in the form of a manual assists and supports training efforts.

Weil (1995) studied the impact of collegial peer coaching teacher training programme upon Palm Beach County teacher's sense of self-efficacy. The purpose of this research was to ascertain the effects of collegial peer coaching on teachers' perception of self-efficacy. Developing skills to improve student achievement is the goal of in-service training for teachers. Teachers' efficacy requires practice and refinement in order for teachers to gain executive control over newly-learnt strategies. No empirical evidence exists regarding the effects of collegial peer coaching on teacher behaviours. The results of the study indicate that teachers' sense of self-efficacy is improved significantly by collegial peer coaching.

Wilson (1995) studied the effects of a demonstration classroom on elementary teachers involved in a problem-solving in-service programme. It was found through indepth interviews
conducted after participants attended the demonstration classroom that the teachers felt that problems solving demonstration classroom allowed them to address their personal needs, there were multiple opportunities for professional practices used in search, create and share problem solving were classified.

Leeper (1996) studied early steps towards the assimilation of the theory of multiple intelligences into the classroom practice by four case studies. This study generated principle, which can be applied to all staff development training programmes in which teachers must have opportunities, following training, for peer coaching, time to plan and gather resources to support new initiative and time to reflect on their work.

Taber (1996) studied the impact of the training to participate in professional resource opportunities cadre teacher programme on teachers. The trained teachers believed they had become better teachers and felt better equipped to assist other teachers in their growth with regard to classroom assessment.

Burgess (1997) assessed the professional development needs of elementary teachers implementing inclusion of children with disabilities in general education classrooms. Data were collected from 325 elementary teachers randomly assigned to the sample using a 65-item survey designed for this study. The factors found to be of most significance were level of experience working with students with disabilities and current stage of involvement with an inclusive programme. Conclusions of the study reveal the need for professional development based on professional growth stage relevant to present working conditions and events.
Costello (1997) studied the classroom teachers' perceptions and the transfer of skills resulting from their participation in the instructional support team process to consider questions regarding teacher's attitudes toward students with learning problems, transfer of instructional strategies into the classroom for non-referred students and the general perceptions held by regular education teachers. The findings of the study indicate that these classroom teachers are increasing their teaching abilities to solve the learning problems of students and are applying this knowledge to the needs of all the children or in the class.

Gish (1997) studied the implementation of the teaching enhancement system and its contribution to teacher professional development to provide data for two purposes: to assist the district in making informed decisions concerning programme modifications, and to expand the current knowledge base concerning this new paradigm of professional development programmes.

Park (1997) studied a training strategy for primary Sunday school teachers. The purpose of this study was to help church teachers become more confident and capable through teacher training. This project involved: improving the teacher knowledge of the basic doctrines of Christianity; improving the teaching and communication skills of teachers and impact the teacher's life and character in a positive manner. A noticeable difference was found between the treatment group and control group in all areas measured. The curriculum was judged as satisfactory, and the overall impact of the programme on the trainees and the Christian education programme was considered positive.
Scigliano (1997) studied the factors influencing the transfer of skills learned in technology training and skills application by teachers in 4th – 8th grade classrooms. It was revealed that there is considerable agreement among teachers that as their personal computer skill increase so does their use of computers in instruction. Teachers indicated evidence of increased comfort with computers with a moderate shift in attitude toward computer use in instruction as a result of training. Teachers valued the training, but did not feel it was a primary factor in determining if they transferred the skill into practice technology, thereby suggesting that integration training needs to be carefully designed around instructional improvement.

Graham (1998) studied the preparation of teachers for multi-age classrooms at the primary level. The purpose of the study was to describe and discuss the results of research about the relationship between multi-age teacher training and teacher’s stage of concern. The professionalism of teacher’s work and the improvement of the professional education of teachers were the crucial external conditions addressed. The data for this study were drawn from the teaching staff of primary schools. It was found that the intensity of management, consequence, and collaboration stages increased significantly for teachers after their multi-age training. Changes at the awareness, informational, personal and refocusing stages were not significant. These results indicated that multi-age teacher training appeared to significantly reduce teachers “self” concerns while increasing “task” and “impact” concerns.

Nyman (1998) conducted a case study of two History and two English teacher’s professional development in the independent school work place. The patterns identified at both
schools mainly illustrate constructive teacher development. Specific elements of weakness were also cited. The results point out the importance of community, the value of mentoring the respect of community, the value of mentoring the respect for and utilization of old teachers and the need for calculating the true cost of professional development. Additional findings were: teachers are not isolated; teachers have substantial autonomy in constructing a curriculum and choosing materials, teachers support system; teachers actively pursue professional development without regard to length of time at the job; crowded office conditions stimulate social and professional interactions and limit privacy; and administrative stability and leadership clearly influence teacher morale.

Shukla (1998) stated that in line with the teaching learning process being advocated in the classroom, this too is shifting from the earlier one-way, lecture based communication to a more interactive, two-lectures, the trainer attempts to create experiences for the participants (such as doing an activity, a role play, reading a text or performing a specific task or exercise) and analyzing that experience in training programme itself. Thus, there is a more experiential training where the trainee had no role to play.

Smith (1998) developed an in-service programme that adhered to the effective staff development components and used the in-service programme to teach nine teachers how to integrate the world wide web (www) into their classroom instruction. A multiple baseline design across schools and participants was used to assess the effects of the in-service programme on the percentage of computer use by students and teachers during the instructional day, during the baseline and intervention phases. It
was found that the in-service programme increased the percentage of time computers were used during classroom instruction. In addition, teachers reported that they and their classroom computers more often both in and out of the classroom setting.

Walqui (1998) studied the in-service professional growth of teachers of English language learners. The study revealed that those teachers who entered the in-service with well-developed professional visions, a strong sense of self, and well articulated questions were profited most. The study suggested the central importance of teacher's knowledge of self in teaching of English.

Wight-Stanley (1998) studied the teachers' behaviour in the process component of traditional in-service programme to examine factors that helped to improve the effectiveness of their classroom instruction. A second objective was to examine factors influencing teacher's judgements of these behaviours. It was revealed that teacher-identified positive workshop behaviours included teacher interaction within and out of small groups, active participation by teachers in the selection of workshop topics, teachers taking the lead in their own learning before, during and after workshops, engaging in hands-on practice, peer coaching, meeting with grade-level colleagues, receiving new, practical knowledge via presenter's lecture, and working on personal change. Analysis of these behaviours revealed that teachers gain significantly, as adult learners, controlling learning content, focusing on application of learnt knowledge, displaying independence and equality in their workshop interactions as a result of in-service training.

Balasubramanian and Sivakumar (2001) studied awareness and practice of innovative teaching methods in primary school
teachers of two blocks in Villupuram district of Tamil Nadu. The study was aimed at finding the level of the innovative teaching methods in primary schools by secondary grade teachers. Both men and women teachers were found to be equal in using innovative teaching methods in primary schools. No gender differences were found regarding the innovative teaching methods in primary schools, which is a welcome trend.

Carlson (2002) conducted a study on evaluation of the effectiveness of Dunn and Dunn model of learning styles. Teachers were found to change their teaching methods when student learning profiles differed from their own learning styles. This study has implications for both teacher training and future research.

Certo (2002) conducted a case study in the support and challenge offered in mentoring to influence beginning teacher's thinking and professional development of beginning elementary teachers. This study offered three different cases of what is possible in mentoring relationship, and one case that is primarily limited to a supportive mentoring relationship. The beginning teachers in this case study evidenced six supportive functions from their mentors; listening, reasoning, answering questioning, sharing of self, sharing instructional resource and providing structure. While answering questions was not surprising, the strong presence of sharing instructional resources and supplies through out the year proved an unexpected finding. The most prevalent challenge activities were engaging in discussion, considering other ideas/inviting experimentation, and others included providing feedback, providing criticism, offering insight, and creating study or approaches, improved classroom management, increased
efficiency with the work of teaching and improved confidence in teaching skills.

Compton (2002) examined teacher's need perceptions for professional development according to their career phases, school setting and gender. A teacher's gender affects the perceived need for these activities: (i) having opportunities to connect with other teachers; (ii) attending a workshop on documenting student progress; (iii) receiving support for reflection; (iv) learning to link standards for learning with assessment; (v) crafting new methods of instruction; (vi) having assistance with locating and selecting materials and supplies; (vii) attending a workshop on working with gifted and special needs students; and (viii) learning current research and best practices.

Kishore, Singh and Ray (2002) while working out weightages of training components for primary teachers consequent to an interactive training exposure found that (i) Most preferred approaches to classroom instruction are the concept-attainment and learning-by-doing approach for in-service training of urban primary teachers, (ii) About 30% of time for each of the concept-attainment, learning by doing and advance organizers approaches should be spent in a training programme, and (iii) Evolutionary and communicative aspects need be built into the approaches (mentioned in serial number two) as the preference weightage for them is about 5% each.

Newman (2002) examined the impact of professional portfolios on experienced teachers' professional development. The findings of the study provide evidence that through constructing a portfolio, an experienced teachers' professional development is positively impacted. The study revealed that the
participants were able to be active in their own learning by examining their practice in context through reflection and dialogue. This investigation recommends that both teachers and administrators work together to develop professional portfolios as a form of professional development. The study suggested that these are critical elements that need to be taken into consideration if professional portfolios are to be successful as a tool for enhancing teachers' professional learning and development.

Roberts (2002) in a study on professional development of teachers at an African-centered public school, found that teachers had an uncritical habit of mind, rarely questioning their practice or the schooling process, and remained resistant to the concept of African-centered education. This study challenges traditional approaches to teacher professional development in urban schools serving black children and offers insight into African-centered teacher education.

Senior (2002) explored a proposed framework for understanding teacher development using psychosocial developmental status as its core. The results of the study revealed strong relationship between the total psychosocial resolution score and global self-esteem. Moderate relationships were found between: (i) the total psychosocial resolution scores and teacher efficacy; (ii) total positive psychosocial scores and teacher efficacy; (iii) the total positive psychosocial scores and teacher locus of control; (iv) the total positive psychosocial scores and global self-esteem; (v) the total negative psychosocial scores and global self-esteem; and (vi) teacher locus of control and teacher efficacy. It was felt that further research is needed to
determine how additional constructs might inform the proposed framework of teacher development.

Sharma (2002) has stressed the need for teachers to continuously improve and grow as professionals. Professional development is one aspect of life-long learning and is essential for those involved in higher education. The teachers have to understand the need to continuously learn whether this be done formally or informally. The assumption is that to keep pace with change, teachers must change and develop their practice in reflective and constructive ways.

Verma (2002) has expressed that a teacher in an information age warrants to be equipped with the modern competencies to work effectively to cater to the needs of information society to prove himself as a knowledge worker. The prospective teacher in the information society is required to be trained and equipped with the techniques of coping with the problems of illiteracy, poverty, social inequality, gender, race, exceptionality, and other social hindrances impeding national development. In this context, teacher education institutions need to improve pedagogy to train teachers not only in teaching and intellectual skills but also civilized in their emotions, awakening morale sense, equality and eternity among the students. The teacher trainees also need to be trained, enable their students to identify their roots, build references and gain strength do adopt themselves to the fast changing information society. Teaching methodology in the information and communication age will shift from teacher-centered education to learner-centered education. Professionalism in a global society demands teachers to be innovative in their attitudes, flexible in their approach and reflective in their minds. A teacher in third millennium has to be
having global vision and speed consciousness. The mandatory and material gains in the teaching profession do not commensurate with the higher educational qualification prescribed for the appointment of teachers in the profession. To promote chances to learn new ways to collaborate with the students and fellow teachers, to enrich the curriculum so as to make modern technology as a facilitator of the teaching learning tool. The teacher needs to be an efficient and effective communicator of knowledge, skills and attitudes. He will be supposed to learn to manage the site by content updating on the sites.

Batane (2003) focused on two secondary schools in Botswana that have implemented technology use in their classrooms. The purpose of the study was to investigate how computers are used in the classrooms and also to find out the attitudes and perceptions of teachers, students and administrators towards technology. It was found that school based workshops are conducted to train practicing teachers to use technology. Lack of time for training leads to limited use of technology by teachers. Teacher training institutions are altering their curriculum to accommodate educational technology. The study recommends a more systematic approach to teacher training, to equip teachers with necessary skills to effectively integrate computers in their classes.

2.3 Correlates of Teacher Effectiveness

Raina (1981) found in a factorial study of the personalities, attitudes of teaching and creativity of in-service and students teachers belonging to three subject areas that the pre-service and in-service teacher differed significantly on seven of the sixteen factors assessed the 16 personality factor test, then
attitude towards teaching when taken as a whole. The in-service teacher were highest on the factor of intellectuality, self-strength, environmental sensitivity, individuality and initiative.

George (1982) evaluated role expectations, role performance and training needs of teachers of English in the secondary schools of Kerala. The main conclusions of the study were: (i) Intensive training for teachers of English at the B.Ed level and in-service courses for teachers were necessary to close the gap between role expectation and role performance. Lengthening of the B.Ed training course, introduction of modern methods in teacher training, a course in general English, trainings in evaluation techniques and the use of audio-visual are the main educational implications.

Kaur (1983) made an investigation into dimensions of teacher-effectiveness as perceived by secondary school, college and university students. The number of factors varied between 14 and 20 for different subjects at different levels. These factors pertained to different cognitive and affective characteristics of teachers, styles of teaching, designing of teaching materials, interaction with students, etc.

Sayag (1984) conducted a study on teaching competence of pre-service and in-service teachers trained through different treatments of microteaching. It was found that peer feedback in the standard microteaching and peer-cum-audio tape feedback in the modified microteaching group produced equal effect, but superior to that of college supervisor feedback in the traditional student teaching group, on the development of the general teaching competency, and competencies in selected teaching skills.
Ainley (1987) stated that there is little consistent evidence of a strong effect of the materials and equipment in schools on achievement. There is however, available a substantial amount of evidence that the physical environment of a school or classroom can effect the behaviour of people and their attitudes towards school and learning.

Aggarwal (1988) studied adjustment problems and their related factors of more effective and less effective primary level female teachers. It was revealed that more effective teachers at primary stage had problems of adjustment due to social factors while emotional problems were dominant with less effective teachers.

More (1988) examined the relationship between teaching effectiveness, teaching aptitude and personality traits. On the basis of research findings, it was revealed that only 6 out of 16 factors of personality were found to be positively correlated with teaching effectiveness, of which intelligence was the most important. Teaching effectiveness and teaching ability have positive relation and the total personality of the teacher's found to be influencing effective teaching and ineffective teaching.

Thakur (1988), in a study of personality differentials between teachers showing direct and indirect behaviour, found that personality factors could account for assessment of teaching behaviour in classroom situation.

Sharma (1990) found that the use of the blackboard in classroom teaching was very effective on account of its use for display and as a physical extension of the mind.

Queen (1995) evaluated the effectiveness of the newly evolved staff development programme, teacher expectations and student achievement, as measured by change in personality
variables. The study concluded that programme for imparting adult learners in such a way that personality variables are changed. This evidence leads strength to philosophies in the research view which postulated that adults are capable of learning that creates a psychological shift or personality change when they learn content in a complex reflective level.

Daniel (1996) studied an interactive multimedia environment in Mathematics and preparation. It was revealed that several teaching styles encouraged students to abstract general meaning across examples of individual teacher action. Students discourage focused on: prior learning experiences, connections to coursework, interpretation and evaluation of teaching episodes, children’s actions, and recognition of relationship between teachers actions and children’s learning. Aspects of views that supported students learning included video clips, text contiguous to video clips, and collaborative problem solving.

Esealante-Urecheagas (1996) studied the literacy practices in a first grade whole language classroom. The study was guided by four research questions: (i) From the teacher’s point of view, what literacy activation defines this first-grade as a whole language classroom? (ii) What kind of child responses are valued by the teacher, and incorporated into her transition to the whole language approach? (iii) What type of environment (e.g. classroom arrangement, materials etc.) has been set up by the teacher, and how does it reflect change in her philosophy? and (iv) What curriculum modification has the teacher made in order to more towards a whole language approach? The study revealed that (i) there was congruence between the teacher’s beliefs about literacy instruction base on the whole language approach and
their actions in the classroom; (ii) the teacher was committed to facilitate literacy development through less direct-skill oriented instruction; he immersed children in reading and writing by providing ample material to explore; and made extensive use of modeling; (iii) the classroom arrangement allowed individual student to work with peers; and (iv) children were the center of the learning process.

Kerawalla and Pandaya (1996) studied the school ethos and school effectiveness and suggested that the school process can be improved if (i) the teachers are enthusiastic, clear in presenting instructional matter, use diverse techniques and aids for teaching, have a command over the subject and are task-oriented. These teacher qualities should be given attention at the time of recruitment of teachers, (ii) the evaluation process is made more scientific, objective, comprehensive and reliable, (iii) the curricular and co-curricular activities are well planned and allow student-participation in planning, and (iv) the principal and the teachers make conscious attempts to be rational, fair, impartial, democratic, punctual, orderly and indicated to duty.

Kjelgaard (1996) revealed in a study of patterns of vision, action, and effects in professional development as experienced in the Texas Centres for Professional Development and Technology (CPDT) that 18 themes were common across all eight Texas CPDTs. The themes revealed patterns of vision which included developing a common ground, breaking barriers, evolving visions, and partnership trade offs. Patterns of enactment included formal and informal professional development opportunities. Patterns of effects included empowerment of teachers, updating of university faculty and public school issues, better prepared classroom ready interns and more attention for
students. The study provided strong evidence that relationship building processes are crucial for building a sustained learning situation for a community of learners.

Orderdonk (1996) studied teacher’s roles for the 21st century. No significant interaction between demographic variables and respondent’s ranking of roles was observed suggesting general agreement by disparate groups about teacher roles perceived as important or less important. Roles perceived as more important tended to be those, which were “process”, or “pedagogically-oriented” rather than those, which were “content-oriented”.

Camburn (1997) studied the impact of professional community on teacher learning and instructional practice. Professional community was found to provide a supportive learning climate for teachers and was positively related to a basic knowledge attainment instructional focus. A supportive teacher training climate was found to be positively related to such teaching that promotes the application and analysis of knowledge. In contrast, teachers in such climates tended to de-emphasize basic skills instruction.

Coulter (1997) studied the effectiveness of in-class instructive feedback and after class instructive feedback for teacher’s learning specific teaching behaviours. The purpose of this study was to determine whether in-class feedback or after-class feedback was more effective for teachers acquiring and maintaining specific teaching behaviours. Seven participants were provided with feedback on two target behaviours and no feedback on a third control behaviour. Two of the target behaviours were counter balanced across subjects. The results showed that the behaviours receiving in-class feedback acquired
faster and acquired at a higher level than those behaviours receiving after-class feedback. In addition, in-class feedback was more effective in maintaining behaviour.

Kellman (1997) studied the relationship between teacher qualifications, year of teaching, in-service training and student achievement on the common entrance examination in Barbados. It was revealed that a significant positive linear relationship exists between teacher’s qualifications and student achievement. Teachers who possessed the teacher’s certificate with the Bachelor degrees were found to have significantly influenced their students’ academic achievement. However, no statistically significant relationship was found between the teacher’s years of teaching and in-service training and student achievement. One reason for the lack of relationship of the in-service training variable with student achievement was that over 50 percent of the subjects in the study indicated that they did not have any in-service training for the period with in which this study was conducted. Several subjects had in-service training for only one day.

Keyser (1997) studied teaching portfolios for middle school science teachers. The results of this study indicated that the programme instructional design contributed to the teacher’s positive perceptions regarding the programme’s effectiveness. There was a strong connection between initial need assessment responses and classroom implementation. Each portfolio was unique and no single teacher characteristics influenced portfolio planning or implementation.

Shrader (1997) studied professional development in Total Quality: A need assessment for teachers. It was found that more than 80% believed that Total Quality could be effective in the
schools and over 75% wished to know more about Total Quality. Training demand was indicated by 15.4% of the respondents. The majority of the respondents are discriminating in their desire for training suggesting strongly the importance of a detailed analysis when determining the needs for training within the broad territory covered by Total Quality.

Breneisen (1998) studied the identification and effect of individual readiness factors on staff development. Individual readiness factors and their relationship to professional development programmes in the maintenance or rejuvenation staff development was found to be an appropriate vehicle to promote a positive attitude and enthusiasm among teachers. Individual readiness factors were seen to affect job satisfaction through interaction with professional development and personal life.

Case (1998) studied the implementation of cooperative learning to investigate its relationship between teacher belief and attitudes. The results of the study revealed that there were, indeed, possible differences in the belief of the two groups of teachers. The frequent users of cooperative learning expressed more concerns related to the broader purpose of education related to the development of independent, creative and self-regulated learners. High users of cooperative learning valued the concept of shared responsibility for learning and student interaction more than low users did. There was also a tendency for the low users of the cooperative learning to indicate that cooperative learning was very difficult to implement, while the high users indicated it was only somewhat difficult or easy to implement. These results indicate a need for further study of the
dimensions of teacher beliefs and attitudes and their relationship to staff development issues.

Dee (1998) conducted a study to investigate the effectiveness of behavioural consultation (BC) confined with competency-based training (CBT) in training teachers to use skills aimed at facilitating a child's social skill development in the school setting. The findings indicated that BC combined with CBT involving debriefing, problem solving, and goal setting has the potential to help teachers acquire those new skills which in turn may be effective in decreasing problem behaviours of students. Behavioural consultation combined with the competency-based training programme was not effective in maintaining either the teacher skills or student behaviours over time. However, BC was perceived as both an acceptable and reasonable means of addressing the social problems of students in the classroom setting.

Sullivan-Duncan (2000) studied parents' and teachers' perceptions of the organizational culture that exists in elementary schools in two county-wide school districts, both rural. There were significance difference in teachers' and parents' perceptions of the organizational culture in elementary schools according to race, and gender. It was rejected. However, no significant effects of status of teachers and parents' race, and gender on perceptions of the organizational culture in elementary schools found.

Barlett (2001) conducted a case study research in two comprehensive high schools to examine how teachers' affective stance toward their work arises from the relationship between individual, community and organizational conceptions of the teacher role, and the degree to which teachers perceive those
conditions as congruent. Teachers at both schools embraced an expanded conception of the teaching role, but experienced very different school environments for sustaining that role. One school embraced the expanded conception in its policies and practices, while the other school's policies and practices reflected a narrower and more traditional teacher role conception. Professional community emerged as an important mediating influence in the relationship between individual teachers and the school organisation. Supportive professional community served to reinforce and sustain the expanded role; however, supportive professional community was insufficient to compensate for the lack of certain structural supports, especially as external pressures intensified. Where expectations were incongruent, teachers were vulnerable to stress and the school suffered high teacher attrition.

Thakur (2001) found in his study that teacher personality and behaviour as explained teacher's role perception with regard to teacher-pupil interaction, job commitment, academic environment in the school and teacher-community relationship is another unique factor. Teacher's background factors i.e. their educational and professional qualification along with use of facilities in classroom and available academic support from different agencies/persons may be treated as another factor, namely teacher empowerment.

Barr (2002) conducted a study on fostering student achievement by investigating the relationship of collective teacher efficacy and student achievement. The purpose of this research was to determine if there was a relationship between collective teacher efficacy and student achievement and if collective teacher efficacy made an independent contribution in
explaining student achievement beyond socioeconomic status. Relationship between collective teacher efficacy and student achievement was found to be significant. The relationship between collective teacher efficacy and student achievement on the made an independent contribution, while controlling for socio economic status. However, the relationship between collective teacher efficacy and student achievement did not make an independent contribution when socio economic status was controlled.

Bawa and Kang (2002) conducted a study on thinking pattern of teachers as a function of teaching effectiveness. The results revealed no significant difference in the thinking pattern of university, college and school teachers. Moreover, no significant relationship between thinking pattern of teachers and their teaching effectiveness has been found. The findings of the study revealed that there is no significant difference between the male and female university, college and school teachers as far as their thinking pattern is concerned. Moreover, teachers require different types of teaching skills to improve their teaching effectiveness and thinking patterns of teachers play less role in their teaching effectiveness.

Byrd (2002) conducted a study to analyze whether teacher efficacy affected the academic achievement of students in third grade and to examine if teacher efficacy and achievement differed in terms of award winning schools and non-award winning schools in selected districts of South Carolina. The sample for this study was drawn from third grade teachers in award winning and non-award winning 49 elementary schools in South Carolina. There was no significant difference in teaching efficacy between award winning schools and non-award winning
schools and also in teaching efficacy between rural schools and urban schools was accepted. However, significant difference in self-teaching efficacy emerged between rural schools and urban schools. Academic achievement of third grade students was found to be the function of teaching efficacy and location of schools and award status of school.

Cantrell (2002) investigated teachers and principals’ perceptions of shared decision making in schools and found that: (i) There were significant differences in the perceptions of teachers’ and principals’ regarding shared decision making in schools, (ii) There were significant differences in teachers and principals’ perceptions of shared decision making in schools by gender, (iii) There were significant differences of teachers’ and principals’ perceptions of shared decision making in schools by race, (iv) There were significant interaction effects of status, gender and race on the perceptions of shared decision making in schools.

Haase (2002) examined why some of the best teachers in Wisconsin’s high school with 10 to 20 years teaching experience continued to learn. The study investigated the motivation of 15 Fellowship recipients to learn, improving their classroom performance. The findings of the study suggested that motivation for continuous learning lies in the development of strong emotional connections to the students, which enables expert teachers to better serve the students learning needs, using their professional practical knowledge to prepare students for life beyond the classroom walls.

Kem and Mishra (2002) expressed that although a teacher’s primary duty is and will be teaching and providing guidance to his pupils, he has to perform various functions and
live up to various roles transcending all boundaries of space and time as Adamns has rightly observed "A teacher affects eternity; he can never tell where his influence stops". The most important factor in educational reconstruction is the teacher - his personal qualities, his educational qualification, his professional training and place that he occupies in the school or college as well as in the community.

Kunjari and Muniasamy (2002) pinpointed that in order to attain the universalisation of the elementary education, different sectors of the community will have to work in collaboration and co-ordination with each other. The decentralization of planning and management of basic education has to be carried out into the community. Educational institutions in the community should have the great deal of autonomy, to adopt and respond to the community learning needs.

Saraceno (2002) conducted a case study in the role of teachers in the redesign of a large comprehensive high school. The study focused on the teachers' role in the redesign process. Through a series of interviews and document analysis, the actual involvement and commitment of the teachers in the redesign effort was evaluated. It was observed that the process resulted in a more collaborative, collegial environment. Communication among teachers and administrators also improved.

Singh, Sharma and Verma (2002) conducted a study on burnout among primary school teachers in relation to some demographic variables and found that male and female teachers had almost equal level of burnout. Age had no significant relationship with burnout, but teaching experience was significantly and negatively related to the feeling of burnout. Teachers with less experience need to be given a conducive and
sympathetic treatment in the primary schools, by the headmaster/headmistress so that they do not feel burnout. Further, teachers of primary schools needs to be informed regarding disadvantages of burnout and take precautions in this regard.

Soundararaj (2002) found that teacher performance appraisal is the key to ensure overall quality enhancement in the performance of an academic community. The success of monitoring learning processes largely depends on the competence of the teacher in the practice of the skills of the profession. Teacher Performance Appraisal is a facilitating strategy to develop teacher competence. The process of making a teacher performance appraisal consists of setting up a multiple profile of each teacher using appropriate instruments. Separate assessments of teacher performance in teaching, monitoring learning processes and learner progression, research and participation in, as well as contribution to, institutional activity help build the multiple profile and the feedback so obtained is significant to professionalise one's pedagogic skills.

Kishore (2003) remarked that the new primary education programmes are said to be planned and implemented through participative, responsive ways linked with action. In other words, research has to strengthen the programme and people involved in it. This requires a shift in the research paradigm from old world view of research. Knowledge in and for action as well as reflection, whole-heartedly involved and intensely self-critical and initiative, grounded and practical that empowers people is shift in research paradigm. Advantage of the shift in research paradigm is helpful, as it has humanizing effect with people becoming co-learners. Thus, participatory research enables people to integrate ideas with their own field of action and also
develops enquiry methods to fit with their own needs. It requires paying critical attention to all the role-actors in their own experiences as they are to act in their world of action.

2.4 Evaluation of in-service Teacher Education Programmes

Banerjee (1967) studied the training of primary teachers in India and found that: (i) There are weaknesses and shortcomings in the professional education of primary teachers and vigorous attempts were needed to put the programme on the right track; (ii) Basic education attached great value to the child and real development would take place only under conditions of freedom; (iii) In the new age, the school, the teacher, the training institutions had to pay a great role in changing the old patterns of education; (iv) The number of student teachers, explosion of knowledge and democratic living all these placed upon the training institutions a responsibility of unprecedented magnitude; and (v) A training college had to address itself to the task with a spirit of high adventure and faith.

Sharma (1982) studied the progress and problems of teacher education in India. It was found that (i) Methods of teaching and evaluation being used in training institutions were traditional. (ii) There was dire need of organizing refresher courses, short terms intensive courses in special subjects, practical training, workshops and professional conferences at both the levels (primary and secondary) of teacher education programmes. (iii) The organisation, content and methods of teacher education must be constantly improved.

Pradhananga (1986) undertook an evaluative study of elementary teacher education curriculum of Nepal. It was found that: (i) As the indicator of elementary school education, the
availability of teacher's followed by teacher's conduct, proportion of trained teachers in the teaching staff and the physical facilities at school were highly preferred. (ii) For making elementary-teacher education more effective, the first three preferences were given to (a) the field-needed orientation, (b) teaching of professional courses in relation to actual classroom situation in school and (c) linking theory courses with actual practice in pedagogy. (iii) It was suggested that the objectives of the courses in elementary-teacher education need to be changed. (iv) The trained elementary-school teachers did not find the proficiency certificate in education contributing to their professional growth.

Butala (1987) inquired critically into the in-service educational programmes conducted by secondary teacher training colleges of Gujarat State. It was revealed that:

i) A majority of the teachers were not covered under any in-service programmes.

ii) The in-service educational programmes were conducted mainly on school curriculum.

iii) The programmes of in-service education were planned by the advisory committee of the centre.

iv) The teachers were in favour of in-service training programmes being organized on working days only.

v) The in-service programmes were not evaluated systematically.

vi) The quality of in-service programmes was rated fairly high by teacher participants. They felt that the programmes were related to their professional growth.
Mishra (1989) studied the teacher education programme at the primary level and found that:

i) The teacher education curriculum did not specify the aims and objectives, although the objectives in terms of different content areas were specified.

ii) All teacher educators reported the need for more in-service training in all the areas of the syllabus and the induction of pre-school education, elementary education and non-formal education.

Srivastava (1989) in her evaluation of the impact of training found that it did improve teaching efficiency, which in turn, influenced the attitude and aptitude of student-teachers.

Panchbhai (1990) found in a study that around 85 to 90% of the teachers from primary and secondary schools expressed the opinion that the attitude of the teachers towards the in-service education programme had not changed due to the non-cooperation of the head of the institution, and lack of motivation confirmed teachers' lack of interest in professional development. Since teachers were not genuinely interested in the in-service education programme, it was suggested that in-service education must be made more interesting so that teachers welcome it and are motivated for participation in such type of programmes.

Prasad (1990) studied feedback on implementation of the Programme Of Mass Orientation for School-Teachers (PMOST). The results of the study revealed that:

i) The awareness with regard to the major thrusts and concerns of the theoretical perspectives of the NPE, the specific objectives of PMOST and its implementation, was reflected favourable in both elementary and secondary teachers.
ii) The teachers had also conceived their role as an implementer of the policy; their emerging role as a facilitator, a guide and a co-partner in learning activities and their professional, social and leadership role as a teacher.

They considered professional growth and improvement in their teaching-learning strategies as a major outcome.

Sirohi (1991) found that the training did not reach anywhere near the teachers' expectations. The months and hours of working everyday were not appreciated by most of the teachers. The amount of material included in the modules was felt to be too large to implement in the schools.

Vyas (1991) found the performance of the teachers trained under the PMOST to be better than those who were not trained under PMOST in the areas of child-centered teaching, motivation and inquiry skills, efforts regarding improvement of subject, use of mass media, cooperation in school, organizational and co-curricular activities, efforts regarding national integration, efforts for the education of the deprived group children, international understanding and value-oriented education, efforts for talented and slow learners and community participation.

Manoj (1993) studied the "competencies and training needs of DIET faculty members in DPEP districts of Kerala". It was found that: (i) Most of the faculty members working in DPEP-DIETs were men and were from teaching background; (ii) Almost all the faculty members had a double post-graduation and one-third of the total DPEP-DIET faculty members were not willing to continue in the DIET; (iii) DIET faculty members did not consider themselves least competent or not competent with regard to any of the competencies and did not perceive the need
for a long term training with respect to any of the competencies; and (iv) the DPEP-DIET faculty members in Kerala preferred to have training programme outside the DIET, 7-10 days of short term training, less than one month or one to three months duration for long term training and institutionalized type of programme.

Betageri (1996) studied the competencies and training needs of DPEP-DIET faculty members in Karnataka and found that: (i) Most of the DIET faculty members did not have post-graduation in Education and all the faculty members had undergone one or the other training in elementary education; (ii) DIET faculty members considered themselves fairly competent; (iii) Most of the faculty members required a short term training programme with theoretical orientation; (iv) The faculty members working in a particular wing of DPEP perceived training as required to certain identified competencies; and (v) Even though a DIET faculty member was likely to have more than 10 years of previous experience, his/her experience in DIET was less than 2 years.

Sapp (1996) studied teacher perception of the components of effective inservice training in Fine Arts and their relationship to the implementation of curriculum improvement innovations. The study revealed three factors, namely, choice to participate, suitability of schedule, and intrinsic incentive as related to implementation of curriculum innovations.

Sillman (1996) conducted a study to investigate the impact of an efficacy seminar, a staff development programme on beliefs about intelligence, race, and the concept that all children can strategies of description and interpretation. Direct quotes served as a primary source for interpreting the impact of the
Efficacy Seminars. In the study, beliefs were examined in the context of the social construction of reality, staff development was considered a process of secondary socialization and therefore vulnerable to the powerful belief systems internalized in childhood. The research literature indicates that adults display strong resistance to a belief change. This is partly explained by how we create and sustain personal constructs of reality. The conclusion from the present study was that no enduring change occurred in the participants’ beliefs.

Swain (1996) revealed in his study of elementary teachers involved in a yearlong professional development programme of mentorship and peer support that leaders of professional development should take an inquiry stance towards the transformation process of the teachers; that professional development should include a support network in which teachers can voice with honesty, their concerns, goals, and frustrations; and that the teachers as orchestrators of change must be honoured as a viable vehicle for professional development. The other conclusions were that teachers must be given opportunities to participate as effective strategists in their own classrooms and that teachers should have opportunities to write; and that teachers should be supported as researchers in their own classrooms.

Bohan (1997) studied the evaluation of the impact of collaboration and skills in-service training for Northern Gila County teachers. The in-service training focused on collaborative consultation models and techniques for best practices in instruction. It was revealed that a majority of the teachers reported improvements in their beliefs, practices and skills with using adaptations with students with special needs in the
classroom. Most teachers were observed to use adaptation practices in their classrooms more frequently after training. Teachers reported that they were more skilled with making adaptation after training. The overall results suggested that the six-month training provided in five sessions had a positive impact for a majority of a teacher.

Burney (1997) in an analytical study of effects on teaching practices, professional development in an integral part of the districts on going system-wide multi-stage effort to improve instruction and learning found the involvement of staff in self-awareness, planning, implementation, and reflection through a flexible array of professional development opportunities. The principal defines the school’s literacy goals and objectives and the professional development agenda for the staff in an annual plan. The school staff developer conducts classroom observations, models effective instructional practices, fosters peer relationships and leads faculty planning groups.

Robinson (1997) studied the perceptions of the need for training in competencies among pre-service and in-service teachers. It was found that in-service regular education teachers possess more knowledge than the pre-service regular education teachers as they plan individualized programmes for students with disabilities in inclusive settings. However, both groups were unsure of their ability to apply their knowledge to actual delivery of services. Experience in the working with students with disabilities increases the skill level of the regular teacher, which in turn, enables the teacher to render more appropriate educational services. Adopting the beliefs that knowledge of students with disabilities fosters positive attitudes, staff development programmes need to include seminars addressing
students with disabilities. Implications for research on teacher education include the need of both quantitative and qualitative studies to examine the nature of the experiences provided for the student teachers on campus and during school experience as well as the impact these experience have on the student teachers.

Yost (1997) conducted a naturalistic study of the mentoring experience on veteran elementary teachers involved in a professional development center. This study described the benefit of mentoring as experienced by four elementary professional Development center mentors in relation to their understanding of teaching and of themselves as teachers. Participants in the study were veteran elementary teachers who were chosen by their districts to be mentors in the professional development center of a university. The study was conducted using the naturalistic methods of data collection, and observation. One extended interview using guiding questions and three focused interviews were conducted with each mentor. In addition the yearlong journals kept by the mentors provided a long-term data source. As the researcher was a member of the mentor group, first-hand observation and knowledge were available for data collection and analysis. The results indicated that mentoring experiences yielded sufficient evidence in terms of enhanced self-efficacy and inter-personal relations along with clear conceptualization of teaching.

Ananda (1998) studied the impact of the in-service programme on teachers' sense of efficacy and teachers perceptions of their work environment. The study found that urban teachers reported more teaching efficacy than rural
teachers, whereas rural teachers reflected more positive attitudes toward resource adequacy.

Bodwell (1998) studied discourse intensive science learning and science education reform. It was found that current science education reforms require of in-service teachers a resocialization which includes valuing and engaging in certain forms of discourse. This analysis suggests that in a professional development setting, extended conversations grounded in science texts, classroom video tape and transcript data, can deepen conceptual and pedagogical understanding, as required by those reforms.

Bogan (1998) studied the structured dialogue as staff development to find out whether professional development programmes increase student achievement through appropriate teacher education. The debate revolves around the method to encourage teachers to utilize practices that improve teaching and learning-techniques oriented or reflection on practice. Although individual teachers attested to professional and personal growth through dialogue, there was minimal transference of that knowledge to improve their teaching. The perceived irrelevance of some of the readings to the realities of this rural high school made it difficult for teachers to make connections between the readings and their practice. In the third and the last year of the dialogue, the writing of the educational specifications for the renovation of the high school actually diverted the teachers' attention away from teaching and learning and on to architectural details that resembled more a hierarchical teacher student relationship than a collegial conversation among peers.

Doherty (1998) studied professional development for Boston teachers in school to career programmes. The purpose of
this study is to analyse teachers' perceptions of the effectiveness of the professional development opportunities which are currently being provided to teachers in the school-to-career programs in Boston. The examination of professional development in the paper is, therefore, limited to those professional activities which are designed to prepare and support teachers in their efforts to integrate academic and occupational education. The results of the study indicated that although teachers offer a generally positive assessment of their professional development opportunities, they also raise several concerns, express a variety of needs, and identify a number of obstacles regarding school-to-career and professional development. It was also found that the process of bringing about actual change in classroom practice is slow.

Koch (1998) studied the effect of an in-service programme on the teacher's knowledge of general school law. This study was deliberately designed to determine which factors are more deterministic in enhancing teacher's knowledge. In general, it was found that teachers did not have sufficient knowledge of school law, and factors such as amount and level of education, and status and position were positively correlated with increased knowledge. Factors such as years of experience, gender, race and ethnicity were not correlated with higher level of knowledge. The most significant finding, however, was that when teachers had participated in several in-service training experiences, typically workshops, and, when combined with other factors noted above, their knowledge of school law was significantly higher.

Panda (1998) explained assessment of training needs is a key determinant and first step of the effectiveness of an in-
service training programme. Training needs, which are generally expressed in terms of knowledge, skills, attitudes depend on the nature and performance of the job. Hence, the need assessment will help to link training to needs and goals of the schools. It has been observed that topics of immediate concern to practitioners have greater impact and more effectiveness in classroom practices. The procedure of need assessment is (i) Questionnaire (ii) Diagnostic test (iii) Performance test of pupils (iv) Classroom observation (v) Interviewing Teachers (vi) Focus Group Discussion (vii) Case studies. A combination of these technique is desirable to obtain reliable data about teacher in-service training needs which may vary in different contexts.

Sentif (1998) studied the implementation of staff development training to determine the relationship between teacher perceptions of effectiveness of training activities and variables of training structure, administrative factors, incentive and training components. In addition, the study investigated the relationship between those factors and the variable of teaching experience and grade level taught. It was revealed that there is a significant relationship between training effectiveness, defined as transfer of learning to classroom implementation, and the independent variable of training structure, administrative factors, incentive and training components. A significant independent relationship was also found between training effectiveness and training components, the strongest indicators of which was the degree to which the training was of a hands-on nature. Furthermore, there were significant differences in the relationship between the criterion variable of training effectiveness and the independent variables according to both grades taught and the years of experience of the teachers.
In a study conducted by DPEP, Chamba (1999), it has been found that teachers training courses has, not reflected the trainees needs appropriately. It is therefore, desirable that needs of the teachers may be assessed before administering any training programme. Though a lot of training courses for in-service teachers have been organized in the district, it is felt that teacher's training courses has not taken care of the trainees need appropriately.

Koul and Sharma (2000) found in an evaluative study of DIETs of Himachal Pradesh that objectives of the in-service programmes were relevant to the needs and problems of teaching in the in-service training programmes is the lecture method as about 75% of the teachers were making use of this method. The programmes organized were generally related to three areas: (i) Content related, (ii) Pedagogy and technology related and (iii) Management related programmes.

Chandrasekhar (2001), in an evaluative study has reported that the DIETs are ill-equipped and inadequate in the following aspects: laboratorying modern gadgets, building and technical staff: lighting facility, reading room, drinking water facility, staff and furniture in the hostels, teaching-learning material, and sports and games material. The teacher educators have expressed the lack of dynamism in in-service programmes, the little correlation between theoretical and practical aspects of training.

Gafoor and Ayishabi (2001) examined the existing service conditions of DIET teachers with regard to their mode of selection, special achievements after entering the DIETs and the other service conditions and problems faced by them. The results of the study revealed that: (i) In all the DIETs, the teaching posts...
are filled by deputing teachers from the Government schools only, and it was felt that consideration should be given for the efficient outside candidates, to strengthen the human resources at the DIET, (ii) Only a few DIET teachers' showed their interest to acquire higher educational and professional qualifications. DIETs are supposed to serve as the resource centre of the district. But, this status would not be attained till the DIETs have more efficient teacher educators, (iii) DIET teachers should be made competent to do work such as action research. With the help of different educational agencies, steps should be taken to give them more training, (iv) Measures should be taken to strengthen the library facilities, and to ensure its proper use by the DIET staff, and (v) A lot of problems now exist in the DIETs. All shortcomings should be rectified at the earliest. Methods of evaluation of the work efficiency of the DIET teachers should be strengthened. Constant interactions between DIETs and other higher educational institutions such as NCERT, SCERT, IASE, RIE and Universities should be there.

Chauhan (2002) expressed that the development of teacher education has been continuous. It not only got established quickly but has also diversified into difference programmes, each with a well differentiated form and structure. Diversification of teacher education programmes took place across different stages of education such as pre-school, primary, secondary and higher secondary. Teacher education emerged in specific areas of specialisation like Science Education, Mathematics Education, Special Education, Art Education, Physical Education, Language teaching and learning and so on. As a result of these developments, teacher education today has become a significant
component of our educational system with a large scale network of various institutions and an area of academic specialisation.

The department of education earlier known as teacher training colleges changed their nomenclature without bringing any kind of change at the functional level. Still in the department of education the practical training. It has been argued that we should not forget that teaching is not only a science but is an art as well. There is a need for a paradigm shift in teacher education model which has delayed its effectiveness in meeting the demands of the society and the needs of the school.

Kesarkar and Warkpinjan (2002) strongly advocated affective teacher education. It will have two fold functions. On the one part of it will help to enhance teachers’ personality and equip them to face the challenges of 21st century. On the other hand, it will develop skills in human and interpersonal relations. This will have a positive impact on the pupils. Careful examination of the existing teacher education programme shows that it emphasises knowledge and teaching skills, while affective part is largely neglected. While executing training programmes, focus of the training should not be only on skills or on knowledge, but it also needs to adopt a triple prolonged policy of emphasising knowledge, process and values simultaneously.

Al-Zyoudi (2003) conducted an evaluative study addressing the needs of pupils with challenging behaviour in Jordanian special schools and found that majority of teachers and principals, were critical of their conditions of work, the inadequacies of their training and the lack of both emotional and practical support on offer. Overall, the findings suggest that pupils with special needs in Jordan are not getting the quality of education to which they are entitled. There are suggestions for,
and proposed modifications to, teacher and parent training programmes. There are also suggestions in relation to practical strategies for behaviour and classroom management to be included in initial teacher training and professional in-service training programmes, meeting the needs of pupils who learn at different rates and possible new strategies for the delivery of the proposed curriculum in Jordanian mainstream and special schools.

Gopalan (2003) has opined that quality in pedagogy largely depends upon the professional competence of teachers. Competence here includes academic qualifications, pedagogical skills and commitment. In the years to come, teacher education programmes may have to be more and more subject-specific. The Teacher Education Institutions may have to offer more specific programmes separately to prepare teachers in the areas of science, social science, languages, physical education and vocational streams. Such subject-specific teacher education will provide greater scope and appropriate opportunities to delineate and discern suitable theoretical inputs and conceptualization in relation to practices in education. They will facilitate the process of bringing theory and practice together. At present, there is hardly any coordination between in-service and pre-service teacher education programmes. To be effective, these two categories of programmes should supplement and complement each other. Teachers need to continuously enrich their competencies and enhance their professional performance.

Selvam (2003) proposed a model for inclusion of IT and the affective and humanistic elements in teacher education. The proposed model, with certain basic objectives in mind to fill up the existing gap between training and needs, not only focuses on
the missing link of IT, but also the neglected humanistic element in teacher education. It is recommended that to provide in-service training to teachers and teacher educators on computers and IT: incorporate all the IT facilities into teacher education model; all teachers and students in teacher education; provide the know-how to operate computers and internet to all the student teachers and provide network to teacher education centre all over India.

2.5 Overview

The foregoing details of pertinent studies on teacher education, both pre-service and in-service and efficacy of in-service teacher education programmes provides certain indications. The teacher education has proven to improve teacher’s personality, behaviour and competencies (Verma, 1979; Patel, 1983; Devi, 1988; Kaur, 1988; Vyas, 1991; Kidd, 1995; Graham, 1998; Koch, 1998; Carlson, 2002). However, it is also reported that both pre and in-service teacher education programmes suffer from in-built weakness which are either administrative or academic (Banerjee, 1967; Sharma, 1982; Butala, 1987; Mishra, 1989). The evaluation of DIETs and other in-service teacher training programmes has pointed out some in-built problems in the content and methodology of such programmes, as perceived by faculty and participant teachers (Sirohi, 1991; Manoj, 1993; Betageri, 1996; Koul and Sharma, 2000; Gafoor and Ayishabi, 2001; Singh, 2001; Chandersekhar, 2001). Still teacher competencies show considerable improvement as a result of in-service teacher training (Roy, 1991; Sharma, 1992; Das, 1992; Lakshmi Narayana, 1997; Sentif, 1998; Thakur, 2001) that indicate that in spite of weaknesses in in-service teacher training programmes, these have some utility.
to teacher in a number of professional skills. The views and considered opinion of some researchers call for change in teacher education curriculum and its transactional strategies. There are only a few evaluative studies to gauge the transfer effect of in-service teacher training programmes, and still a case study approach to focus on problems of teacher education in educationally backward districts of the country. Hence, the review of related studies justifies the selection of present problem and also provides a rationale to formulate hypotheses for verification.

2.6 Hypotheses

Keeping in view the pertinent studies showing either positive or no effect on teacher competencies, and gender being an important variable in human behaviour, especially the teacher, following hypotheses were formulated:

1. There will be significant gender differences in the perceptions of primary school teachers regarding efficacy of in-service teacher training programmes for fulfilling the objectives of DPEP.

2. There will be significant gender differences in the attitude of primary school teachers towards teaching and teaching-student relationship.

3. There will be significant gender differences in the teaching competencies of primary school teachers.