CHAPTER-II
REVIEW OF RELATED LITERATURE

The training of teachers demands our urgent attention. The minimum requirement of any training programmes is that it should be enable the trainee to acquire the basic skills and competencies of a good teacher, such as the capacity to manage a class with pupils of varying abilities; to communicate ideas logically and with clarity; to use the technology available to make teaching effective; to organize education experiences outside of class and to learn to work with the community and help the students to do so. But the training programme does not provide for developing respectively to induction of modern educational aids nor does it impart skills to operate even audiovisual equipments.

2.1 MICRO TEACHING

Olivero (1964) conducted a critical study of micro teaching techniques with a view to suggest improvement in its implementation in colleges of education, department of postgraduate education and research. The objective of the inquiry was to study the opinions of training-college teachers about micro teaching in the light of their experience while guiding and observing lessons. The sample consisted of training college teachers teaching different subject methodologies and 20
experienced and effective teachers. The study indicated that while training the science student-teachers, activities such as teacher talk, questioning blackboard work, and demonstration should be taken into account in preferential order and mathematics teachers needed training, in order of priority, in activities such as explanation, questioning, and blackboard work.

Allen and Eve (1968) explained that micro teaching is a system of controlled practice that makes it possible to concentrate on specific teaching behaviour and to practice teaching under controlled conditions.

Bell (1968) suggested that micro teaching group showed significant gain in teaching performance from initial lesson to final lesson. Kallenback and Gall (1969) compared the effectiveness of micro teaching approach and conventional approach in training elementary school interns and pointed out that micro teaching approach was superior to the other in terms of time required for training.

Harris (1970) indicated the value of micro teaching that micro teaching experiences promoted use of background in information provision of concrete materials utilizing children's observations, allowing to develop conclusions, helping children to verifies conclusions etc. In traditional training system the global supervisory comments fail to provide a systematic and specific
feedback to the pupil teacher to plan improvement in subsequent teaching. Some of the pupil teacher after such traumatic experience, develop such a fear for teaching that they are reluctant to face the class, but micro teaching remove these conditions.

Ward (1970) focused that micro teaching improved the attitude of staff as well as students towards education. Encyclopedia of Education (1971) edited by Deighton that micro teaching is a real, constructed scaled down teaching encounter which is used for teacher training, curriculum development and research.

Linn (1972) opined that micro teaching can subsequently improve students skills in evaluating aspect of teaching. Abraham (1974) reported that micro teaching was effective in developing. The skills of fluency in questioning and probing questions.

Bhattacharya (1974) reported that this technique with poly technique teachers and proves that micro teaching was more effective than the conventional technique is two development of indirect teacher behaviour. Joshi (1974) pointed out that Micro Teaching was effective in developing the skills of reinforcement and silence and non verbal cues.

Buch (1975) explained micro teaching is a teacher education technique which allows teachers to apply well defined
teaching skills to a carefully prepared lesson in a planned series of five to ten minutes encounter with a small group of real classroom students, often with an opportunity to observe the performance video tape.

Clift (1976) have explained it that a teacher training procedure which reduces the teaching situations to a simpler and more controlled encounter achieved by limiting the practice to a specific skill and reducing teaching time and class size.

Passi (1976) stated that it is a training technique which requires pupil teachers to teach a single concept using specified teaching skills to a small number of pupils in a short duration of time. Brunis (1978) suggested that the effectiveness of micro teaching and feedback in the development of the skills of recognizing attending behaviour and teacher's liveliness among in service teachers.

Mathew (1978) focused that for the development of general teaching competence the effect of micro teaching is significantly than that of equivalent traditional group of acquiring same teaching skills. The traditional teaching training entire practice teaching programme was not suited to individual talent development.

Paintal (1980) investigated an evaluation of micro teaching and other recent innovations in educational technology.
The main objective of the investigation was to know the effect of transferring the self-instructional micro teaching course on effective questioning. The sample consisted of 164 subjects (30 males and 134 females) out of whom 83 were B.Ed. students, 70 in service teachers and 11 teacher educators from Delhi and Haryana. Paintal found that there was significant difference in the teaching behaviour before the course and immediately after the course.

Kulshreshta (1982) conducted a study of the relative effectiveness of the mini-teaching and the micro teaching approaches in training teachers. The objective of the study was to study the relative effectiveness of micro teaching and mini-teaching in case of teacher training belonging to socio-economic status, different level of intelligence. The study was based on a sample of 40 trainees drawn from DAV College of Education Dehradun and 20 trainees drawn from DWT College of Education, Dehradun. The study indicated that the effectiveness of mini-teaching was found significant on DATS in the case of G4 and G5 in average and low socio-economic status, respectively and the pupils of teacher trainees trained through mini-teaching scored significantly higher than the students taught by trainees trained through micro teaching.

The objectives of the study were to study the pupils' perception of student teachers trained through micro teaching and conventional teacher training approaches, and to study the differential effect of micro teaching and conventional teacher training approaches in relation to the general teaching competence of student teacher. The sample consisted of 644 student teachers and 620 eighth standard pupils and concluded the total gain in achievement in physics, the experimental group scored significantly higher than the control group and the experimental group scored significantly higher on general teaching competence than the control group.

Khan (1985) conducted a study on effectiveness of micro teaching technique in terms of students’ achievement. The objective of the study was to examine the effectiveness of micro teaching technique in the acquisition of certain teaching skills, viz., the skills of introducing a lesson, probing questions, illustrating with examples, using black-board, and achieving closure in real classroom situations and found student-teachers treated with the technique of skill-based micro teaching were
found to be more effective in, General Teaching Competency then those trained in the traditional method of teaching English and each of the five skills depicted significant improvement in the case of micro teaching when compared on the basis of the data of post-teaching sessions of both the methods under study.

Dave (1987) conducted a study on relative effectiveness of micro teaching having the summative model of integration versus the mini-teaching model in terms of general teaching competence, teacher attitude towards teaching, pupil-liking and pupil achievement. The objective of the study was to compare the effectiveness of the summative model of integration, the mini-teaching model of integration and traditional model of integration in terms of general teaching competence, pupil achievement and attitude of teachers towards teaching the study indicated that the mini-teaching integration model was found superior to the summative-integration model of integration and traditional model of integration, in terms of development of general teaching competence in the student teachers and there was a significant effect of the mini-teaching model of integration in comparison to the summative model of integration and the traditional model of integration treatment on the achievement of pupils.
Pandian (1987) conducted a study on micro teaching behaviour and teaching skill performance pattern in different school subjects. The objective of the study was to analyze teaching skills, components of the various kills, the structural pattern of the teaching skills and the differences, if any, In the structural patterns of teaching skill performance in various subjects. The study was based on a sample of 100 student teachers of Gujrat University. The study indicated that the sample practised the four skills: explanation, stimulus-variation, reacting and questioning and found that teachers practised at more than 5% level of frequency of occurrence.

Das et al. (1988) conducted a study effect of intervention training in the integration of teaching competence of student-teachers. The objective of the study was to compare the effectiveness of the vicarious integration and summative model of integration of teaching skills. The sample consisted of 144 student teachers ranging from 16-26 years of age from seven colleges of education and they found that out of the four colleges of education which compared the summative model of integration intervention with vicarious integration, the differences in the mean gain scores were found to be significant only in the case of one college.
Dwivedi (1988) conducted a study of an investigation into the effectiveness on micro teaching in the development of psychomotor skills in biology practicals. The objective of the study was to find out the effectiveness of micro teaching the integrated and the non-integrated approach in the acquisition of psychomotor skills and concluded that the micro teaching integrated approach with four cycles was better than the traditional teaching integrated approach with one, two or three exposures for teaching and learning of the psychomotor skills of collecting, mounting and preserving. For drawing skills, micro teaching the integrated and the non-integrated approach with four cycles was better than one or two exposures of traditional teaching integrated approach.

Sultana (1988) conducted a study of the modification of behaviour of pupil-teachers of science through micro teaching approach, with special reference to Gorakhpur University. The objectives of the study were to assess the modification of behaviour of pupil-teachers of science through the micro teaching approach, and to study the attitude of pupil-teachers towards the micro teaching approach. The study was based on a sample of 60 pupil teachers of science in the training colleges of Gorakhpur University in the session 1984-85 and 1985-86. He found that the skills of introducing a lesson and questioning, probing-questions and experimentation, each skill having 10
pupil-teachers, were significant, which meant that after getting feedback these teachers changed their behaviour towards teaching during micro teaching.

Verma (1988) conducted a study on developing teaching competency among student teachers of science group through micro teaching. The objectives of the study were to study the effect of training on student-teachers teaching skills of reinforcement, skill of probing questioning, skill of stimulus variation, skill of illustration with examples and skill of explaining, using micro teaching technique through observation schedule in simulated conditions and to compare the teaching competency between male/female, urban/rural, experience/inexperienced student-teachers of the science group, developed through micro teaching in real classroom situations. Verma found that the experimental group showed better competencies in skills like skill of reinforcement, the skill of probing questioning, the skill of stimulus variation, the skill of illustration with examples and the skill of explaining. The teaching competency of the female student-teachers of science group was better in comparison to the male student-teachers of the science group using the micro teaching approach and the experimental group indicated favourable attitude towards the micro teaching approach.
Wadhwa (1988) conducted a study related to the factorial structure of attitudes of teacher-trainees towards micro teaching. The objective of the study was to reveal the effectiveness of micro teaching and identify various underlying dimensions on a 40-item scale of attitude towards the micro teaching technique and concluded that the degree of internal consistency of the attitude scale was found to be satisfactory. It is clear from the high degree of internal consistency and reliability that there was a fair degree of coherence within the attitudinal domain and a comparison of the factorial structure obtained through factor analysis with the classification scheme used in the development of the attitude scale indicated that the two were similar. Most of the items on Factors I, III, VI and IX came from the Functional Device category. Factor II and IV derived most of the variables from the Functionless Device category. Four of the seven items of Factor VII came from the Functional Goals category. All the three items of Factor VIII and two items of Factor V came from the Functional Behavioural Change category. On Factor X, all the three items came from different categories. Thus the factors Functional Device (I), Power and Preference (III), Utility and Value (VI) and Universals for Teachers (IX) seemed to be closely related, which suggested that
micro teaching is a functional, powerful and valuable instrument useful for all teachers.

Tripta (1989) pointed out in a case study of micro teaching as an innovation and has foreseen the need of an organization which would promote innovation in teacher education. Tripta found that the superiority of the micro teaching versus the conventional training in developing six skills- the skills of demonstrating, drawing diagrams, blackboard-writing, probing questioning, using basic skills of biology practical, and heuristic skill, was established on the post-test as well as on retention test and the performance of the micro teaching technique in developing the ability to use the learnt skills in an integrated form was better than that of the conventional training. This integration took place vicariously and did not need deliberate planning.

Asija (1990) examined teaching competence as related to development of skills specific to teaching of biology through micro teaching among prospective secondary school teachers. The objective of the study was to study whether the micro teaching group is superior to the conventional training group. The sample comprised B.Ed. students of two academic sessions from the D.A.V. College of the Education Abohar. Asija found the superiority of the micro teaching versus the conventional
training in developing six skills of demonstrating, drawing diagrams, blackboard writing, probing questioning, using basic skills of biology practicals, and heuristic skills, was established on the post-test as well as on retention test.

Singh and Joshi (1990) conducted a study on micro teaching in India. The objective of the study was to trace out the scientific and systematic efforts made in the country in the area of micro teaching as a valuable training technique supplementary to the existing teacher-training. The study indicated that various conceptual and practical aspects related to micro teaching have been discussed by way of definitions, rationale for micro teaching and the salient features of an Indian model of micro teaching.

Pandya (1991) conducted a study of the relative effectiveness of micro teaching and the traditional technique of teacher training in the development of general teaching competence of the student-teachers of secondary teachers' training colleges. The objective of the study was to compare the general teaching competence of student-teachers of secondary teachers training colleges through the micro teaching technique and through the traditional technique and found that there was a significant difference in mean achievement scores between the
two groups on the post-test and micro teaching approach was more effective than the traditional teaching approach.

Gandhi (1992) conducted a study micro teaching approach for student-teachers. The objectives of the study were to study whether the development of teaching skills through the micro teaching strategy helped in shaping behaviour modification of students and to compare the outcomes with those acquired by the traditional approach. The sample comprised 40 students of B.Ed. class at R.P. Ananda College of Education, Barsad. The study indicated that the student-teachers trained though the micro teaching approach was more direct in their classroom verbal-behaviour than the student-teacher trained through the traditional approach.

Gor (1992) conducted a study of the effectiveness of micro teaching strategies for developing the teaching competency of primary teacher-trainees. The objectives of the study was to study the effectiveness of micro teaching strategies with respect to symbolic modeling and perceptual modeling, upon attitude towards profession, professional information and interest in the teaching profession of teacher trainees. The study was based on a sample of 36 teacher trainees. Gor concluded that micro teaching strategies produced a significant effect on attitude towards the teaching profession and interest in the teaching
profession and specific micro teaching skills developed well in simulated condition significantly improved the teaching competency of primary teacher-trainees.

Dutta (1998) conducted a study of integration in micro teaching. The objectives of the study were to study the effect of the traditional trading technique on the general teaching competence and attitude towards teaching of student-teachers of control group and to study the effect of micro teaching on the general teaching competence and attitude towards teaching of the experimental group. Dutta found that the traditional teaching technique, the micro teaching technique and integration training through the additive pattern had a significant and positive effect in developing general teaching competence.

Thukral and Madan (2003) conducted a study on student teaching programme in Colleges of Education under Guru Nanak Dev University. The objective of the study was to ascertain if student teachers are provided opportunities to get fully prepared before going to school for teaching practice and to study whether there is scope for improvement in evaluation procedure of skills lessons. They found that student teachers confirm that procedure of student teaching programme needs improvements and micro teaching is arranged to help students, and to enable
them to deliver lessons impressively. With micro teaching, they feel confident and acquire efficiency in teaching.

Panda (2004) focused that the student teachers receive micro teaching lessons were significant better than others taught through traditional techniques on four teaching skills sets induction, questioning, explaining and blackboard summary.

Singh (2005) conducted a study on re-organization of student teaching performance. The objectives of the study were to study the current trends and practices on student teaching programme prevailing in the country and to recommend future plan and action in order to bring qualitative changes in student teaching programme.

Sarsani and Ananthula (2008) conducted a study on the attitude of student teachers towards micro teaching with respect to their personal and background variables. The objectives of the study were to find out the difference between male and female, post graduate and graduate, science and arts, private and government student teachers with regard to their attitude towards micro teaching. They found that there is no significant difference between male and female, post graduate and graduate, science and arts, private and government student teachers with regard to their attitude towards micro teaching. The difference
between post graduate and graduate, science and arts student teachers with regard to their attitude towards micro teaching.

2.2 TEACHING SKILLS

Broadly speaking general classification of teaching skills must enable a teacher to help the learner in his mental, emotional, social, moral and aesthetic development and to inculcate in him. The habits, attitudes, values which are essential for living in a secular, democratic, better human understanding and personal social guidance which is to be provided to learner by the teacher on one side and to make his teaching effective on the other.

Amudson (1973) found in his study on questioning skills and related abilities that treatment improved the skills of pertinent questioning and perceiving problems. The study concluded that student activity oriented instruction was not significantly superior to those instructions in which pupils were more passive for developing cognitive skills and content achievement.

Singh (1979) in his study found that micro teaching technique was more effective in changing the teacher’s behaviour than Flanders’ interaction analysis category system when criterion was indirect teacher behaviour.
Brown (1981) founded the characteristics identified as components of effective teaching into three categories, professional competence, relationship with students, and personal attributes. Some of the characteristics that were included in the category of professional were showing genuine interest in patients and their care, being well informed, and being able to communicate knowledge to students.

Rusbult and Farell (1983) revealed that the job commitment is a multifaceted phenomenon too complex to be explained by knowing only the individual's level of job satisfaction.

Chathley (1984) conducted an experimental study of teaching competency at macro-level as a function of training micro-skills among the prospective secondary school teachers in relation to the integration of skills and subject area. The objective of the study was to measure the gain in general teaching competence before and after training in micro-skills and after in integration, before training in micro-skills and after training in integrated skills. He found that there was a significant improvement in the general teaching competence of trainees as a result of training in micro-skills.

Kaur (1985) found in her study that Flander interaction analysis technique of the modification of behaviour is a better
technique than micro teaching technique for the modification of questioning behaviour of in-service teachers of a sample. Both modification techniques found to be equally effective for developing skill of asking high order questions. This study also concluded that in case of middle order and low order-questioning behaviour, interaction analysis technique was found to be more effective than micro teaching technique.

Kalyanpurkar (1986) conducted a study on the effect of microteaching on the teaching competence of in-service teachers and its impact of pupil’s attainment and pupils’ liking. The objectives of the study were to study the effect of microteaching training on the development of selected skills, viz., probing questioning, reinforcement, explaining with example, and stimulus variation, in in-service teachers and to study the effect of microteaching training on the development of general teaching competence of in in-service teachers. The study indicated that Microteaching treatment had a positive significant effect on the development of skills, viz., probing questioning, reinforcement, explaining with example and stimulus variation, when the post-test mean scores of the respective skills for experimental and control groups were adjusted for the pretest scores of the respective skills and micro teaching treatment had a positive significant effect on the development of general teaching
competence, when the post-test general teaching competence means of the two groups were adjusted for pretest general teaching competence scores.

Maheshwari (1986) noticed that effective teachers exercise more indirect influence, student initiation and teacher response ratio, used ideas of pupils, asks questions and the effective teachers used more creative teaching models.

Bennet (1987) studied the effectiveness of staff development training practice: A meta-analysis. The study examined the effectiveness of staff development training procedures on teachers’ attitude, knowledge and skill acquisition and transferred training classroom practice. Results indicated that information and theory treatments had minimal effects on teacher attitude, skill transfer – the combination of theory demonstration; feedback resulted in meaningful effects on skill acquisition and transfer of training. The results of this study demonstrated that teachers learn a wide range of skills and strategies and implement them in their classroom when sufficient opportunities to learn provided.

Kaur (1987) found that there is a positive effect of training of Flander interaction analysis technique on the skills of increasing fluency in questioning, illustrating with examples and reinforcement whereas there is not any significant effect of
training in FIACS on the skills of probing in questioning and pupil participation.

Dubey (1989) conducted a study on effectiveness of a training strategy for developing feedback-receiving competence in relation to selected organismic variables of student-teachers. The objectives of the study were to determine whether the feedback training strategy affects the self-assessed feedback-giving competence of student-teachers and self-assessed feedback-receiving competence of student-teachers in relation to the personality, intelligence, and flexibility of the student-teachers. Dubey found that the feedback training strategy was effective in developing the feedback-giving and feedback-receiving competence of student-teachers and the feedback training strategy improved the feedback-giving and feedback-receiving competence of student-teachers and intelligence further contributed in the development of feedback-receiving competence. However, the flexibility contributed in the development of feedback-giving competence.

Arockiam (1990) conducted a study on training strategies in developing questioning skills among primary school teachers. The objectives of the study were to prepare a self-learning package on questioning skills and to assess the effectiveness of the training and learning packages and concluded that primary
school teachers improved their questioning skills through the self-learning package and training on questioning strategy and the self-learning package on questioning skills was found to be effective.

Asija and Pratap (1990) conducted a study on teaching competence as related to development of skills specific to teaching of biology through micro teaching among prospective secondary school teachers. The objectives of the study were to study whether the micro teaching group shows better performance than the conventional training group in respect of development or skills specific to teaching of biology and to study whether the micro teaching group is superior to the conventional training group. The study indicated that the superiority of the micro teaching versus the conventional training in developing six skills – the skills of demonstrating, drawing diagrams, blackboard-writing, probing questioning, using basic skills of biology practical, and heuristic skills, was established on the post-test as well as on retention test and the performance of the micro teaching technique in developing the ability to use the learnt skills in an integrated form was better than that of the conventional training. This integration took place vicariously and did not need deliberate planning.
Gill (1990) conducted a study on the effect of training strategies on creative problem-solving skills and cerebral dominance in relation to intelligence, personality and cognitive style. The objectives of the study were to determine whether the training strategies affect creative problem-solving skills and cerebral dominance and to study if the intelligence, personality and cognitive style affect the creative problem-solving skills. Gill concluded that the right-brain training strategy emerged as superior to the left-brain training strategy, so far as creative problem-solving skills in mathematics were concerned and High-intelligent subjects scored higher on originality than low-intelligent subjects irrespective of training strategy, whereas fluency, flexibility and creative problem-solving totals were not affected by levels of intelligence.

Singh (1990) conducted a study of the effectiveness of different integration strategies for developing teaching skills among student-teachers. A meso-teaching approach. The objectives of the study were to study the effectiveness of different strategies of integration of teaching skills in the development of the general teaching competence of teachers and to compare competence in teaching skills and the classroom verbal behaviour of the student-teachers trained through micro teaching and meso-teaching. Singh found that the student-
teachers trained through micro teaching only showed the following modification in their classroom behaviours: An increased use of behaviour in categories, ‘Accepted feelings’, ‘Praise or encouragement’, ‘Using pupil’s ideas’, ‘Asking questions’, ‘Giving directions’, and ‘Criticising or justifying authority ‘Silence’ or ‘Confusion’ was adequately minimized. There was considerable increase in ‘Teacher-talk’ particularly in ‘Indirect-teacher talk’ (which changed the ratio of ‘Indirect-influence’ over ‘Direct- influence’). The overall behaviour pattern of ‘Indirectness’ remained, more or less, unchanged.

Luthan's (1995) conceptualized that job satisfaction is an emotional response to a job situation and is often determined by how well outcomes meet or exceed expectations.

Dweck (1999) emphasized that needs satisfaction and motivation to work are very essential in the lives of teachers because they form the fundamental reason for working in life. While almost every teacher works in order to satisfy his or her needs in life, he or she constantly agitates for needs satisfaction. Job satisfaction in this context is the ability of the teaching job to meet teacher's needs and improve their teaching performance.

Bruce (2002) stated that understanding about teacher use and acquisition of knowledge and skills in fundamental to
our understanding about how and in what circumstances teachers use research and evidence to develop their practice.

Filak et al. (2003) opined professional knowledge, skills and competencies can be seen when one is taking on and mastering challenging tasks directed at educational success and performance. Jayanthi et al. (2006) emphasized that teacher play and important role in shaping and molding the habits, manners and good character of the children. Khan (2007) opined that effective classroom teaching needs good planning and good personality of a teacher.

Reddy et al. (2009) conducted a study on effectiveness of comprehensive social skill strategy in overcoming social skill deficiency of the defiant students. The objectives of the study were to develop a comprehensive social skill strategy to develop social skills of the defiant students studying standard VIII and to find out whether there is any significant difference in the pre-test performance between the control group defiant students and experimental group defiant students. The study indicated that there exists significant difference between pre-test and post-test Mean scores of the defiant students with social skill deficiency in the experimental group and there exists significant difference in the post-test performance of the defiant students with social skill
deficiency between the control group and experimental group after adopting the social skill strategy.

2.3 MULTIMEDIA

Now a days, we live in a changing scenario of media. Singh and Shukla (1980) investigated a case study of school broadcasts in Delhi. The objectives of the investigation were to examine the extent of radio utilization in Delhi schools and to study teachers’ attitude towards school broadcasts. The study was based on a sample of 532 schools and found after listening to the programmes, the experimental group gained on all programmes to the extent of 7 to 17 per cent.

Goel (1982) a study of school broadcasts in India. The objectives of the investigation were to study the functioning of school broadcast units with respect to different aspects of the programme such as transmission, script preparation etc. and to find out the extent of utilization of school broadcasts in schools and found that the majority of the principals of the colleges of education thought it advisable for the pupil-teachers to listen to the school broadcast programmes and offer suggestions to the AIR for improving these programmes.

Golani (1982) conducted a study on effect on audio visual aid in the secondary schools of district Thane. The objective of the study was to create awareness among teachers and
headmasters of secondary schools about the importance of audio-visual aids. The study was based on a sample of 217 secondary schools Thane district. Golani found that teaching aids were essential and useful in developing clear concepts and in stimulating learning.

Dasgupta (1988) study revealed that the personalized system of instruction group performed significantly better on end tests than the conventional group. On retention and attitude tests, there was no significant difference.

Educational Technology Cell. (1988) conducted a study on need assessment studies: introduction of television in educational work in Meghalaya. The objective of the study was to assess the needs of different beneficiaries in the introduction of television in educational work. The study indicated that the time preferred for educational telecasts was not same by different categories of respondents. A high proportion of heads of school preferred television programmes to become a part of the classwork; a high proportion of teachers preferred to have the educational telecasts during the school recess/break. However, the majority of parents and students preferred such programmes in the evenings. Regarding the frequency of telecast there was general agreement among the different categories of respondents with most of them preferring one telecast a day. The duration of
telecast suggested by the respondents varied between 30 minutes to 1 hour, with students showing preference for a longer duration and the suggestions given by the respondents included provision of television sets to schools; training of teachers for the work; linking television programmes to school subjects; use of local languages in educational television telecasts.

Mehra (1988) conducted a study to investigate the effectiveness of the integrated system of instruction in different school climates. She designed an integration system and compared its effectiveness with the traditional system in two institutions which had a different school culture, e.g., authoritarian and democratic.

Mohanty (1988) conducted a study on a critical study of the educational television programmes for primary school children in the state of Orissa. The objective of the study was to study the impact of educational television programmes on the scholastic achievement of primary school children in general science, social studies and language development. He found that the experimental group had superior mean achievement scores as compared to the control group, which indicated the expected impact of educational television on the scholastic achievement of primary school children in respect of gaining in knowledge in general science, social studies and language and he measure of
language development was significant. Going over the mean scores of the experimental group in respect of language, it was concluded that television exposure had the most beneficial effect on the children of Bolangir District, followed by Sambalpur and Dhenkanal in that order.

Sudame and Goel (1988) conducted a study on school broadcasts in Baroda district. The objectives of the study were to assess the production of school broadcast programmes and to assess the utilization of school broadcasts in the secondary schools of Baroda District. They found that Production of school broadcasts: all programmes except tele programmes were planned and produced by the producer, educational broadcasts, all India radio, Ahmedabad. The commonly used broadcast formats were: talk, dialogue and discussion. Scriptwriters received no training or orientation. A yearly schedule of school broadcasts along with brief outlines of the radio-lessons was published in the SIE journal. all India radio had little coordinate with other agencies.

Antonysamy (1989) conducted a study teaching environmental concepts to school drop-outs through video and charts. The objectives of the study were to prepare a video programme on environmental concepts and to find out experimentally whether the video method is more effective than
using charts in teaching the environmental concepts. He concluded that the school drop-outs taught by the video method learned more concepts on environment than those who were taught by using charts and the working children improved their achievement on environmental concepts after viewing the video programme.

Debi (1989) conducted a study on developing and testing the effectiveness of programmed learning material in the syllabus of principles learning material in the syllabus of principles of education in the bachelor of education course of Gauhati University. The objectives of the study were to construct and standardize a criterion test in the principles of education for bachelor of education students and to construct, develop and validate programmed material in the principles of education. Debi concluded that The programme learning material was found to be effective compared to the traditional method of teaching, in achievement in principles of education in sub-tests 1, 2, and 3.

Educational Technology Cell (1989) conducted a study on feedback studies of educational broadcast on continuous enrichment scheme. The objectives of the study were to enable teachers to improve their teaching skills and to improve the classroom teaching-learning situations and to enrich the experience of both the teachers and the pupils by familiarizing
with the latest information on educational innovations and concluded that the academic content of the programmes was found suitable; the language used was easy to understand; and the method of presentation, suitable.

Mishra (1989) conducted a study on a critical analysis of primary school radio programmes. The objectives of the study were to study the effectiveness and impact of primary school radio programmes and to know the attitudes of children, parents, teachers and students towards the programmes. and found that the maximum percentage is 46.1% programmes was developed to song programmes which were found interesting.

Yadav et al. (1989) keeping in view the spirit, not the form of programmed learning developed twelve modules, self-contained and self-instructional, on research methodology. The modules went under the same chain of region that are needed for developing any self-instructional material. The materials were tried out and modified. Before the final draft the researchers got them edited by professional researchers. The result is a bunch of self-contained modules of research methodology.

Arockiam (1990) conducted a study on evaluation of the UGC country-wide educational television. The objectives of the study were to verify the extent to which the university grant commission country-wide enriched knowledge and promoted
development and utilized the potentiality of the television medium and he found that the telecasts were confined to applied science and social science and the humanities programmes provided in India offered the least knowledge enrichment.

Behera (1990) conducted a study on an investigation into the impact of educational television programmes on the competency of teachers of elementary schools. The objectives of the study were to study the impact of educational television on the competency of teachers of elementary schools in terms of knowledge, understanding and application in content areas and classroom interaction between teachers and students. Behera found that the obtained results concerning the impact of educational television programmes on the competency of teachers indicated significant differences between the television and non-television teachers on their knowledge, understanding and application in the covered content areas.

Chaudhary (1990) conducted a study on teachers’ attitude towards school television and its relationship to mass media behaviour and job satisfaction. The objectives of the study were to study the relationship between the teachers’ attitude toward school television and his mass-media behaviour and to study the influence of the personal and academic characteristics of teachers in relation to their attitude toward school television.
Chaudhary found that the custodian teachers, on the whole, had a fairly favourable attitude toward school television. They perceived school television as an acceptable medium for teaching students and for presentation of instructional material and Teachers’ attitude toward school television and their job satisfaction were positively related.

Chowdhry (1990) conducted a study on ‘Khilte Phool’ – an audio-intervention study at Kota (Rajasthan). The objectives of the study were to inculcate in children an awareness of their immediate environment and to develop in teachers/anganwadi workers the skills to use the ‘play-way’ activity method in teaching young children. The study indicated the evaluation indicated that the children of the experimental group in anganwadis outshone their counterparts in the control group in listening comprehension, sequential thinking, recall and vocabulary, concept of colour and shape, awareness of immediate environment, awareness of cultural heritage and verbal expression.

Giri (1990) conducted a study on problems and prospects of the school broadcast programme. The objectives of the study were to evaluate the modus operandi of the planning and production of school broadcast programmes and to study the barriers, if any, standing in the way of the planning, production
and utilization of such programmes. Giri found that Highly stable percentages were found both in the urban (81.01%) as well as rural (74.02%) sectors confirming the usefulness of the broadcast programmes for teachers in their teaching work, as per the response of the teachers and as per the views of the teachers (urban 100%, and rural 97.4%) the broadcast programmes were helpful to the students in their learning.

Mohanty (1990) conducted a study on a critical appraisal of primary school radio programmes and their effectiveness for pupil’s growth. The objectives of the study were to identify the nature of the contents of primary school programmes broadcast by All India Radio, Cuttack, and to ascertain pupils’ growth and to know about the suitability of language and format in respect of comprehension of the primary school programmes. The study indicated that the criterion measures for the gains revealed that the difference between the experimental and control groups were significant, and the difference between the rural and the urban group was found to be highly significant and comprehension of the programme contents indicated that media programmes were only moderately comprehended and that there was no remarkable effect of the duration of exposure on the target audience.
Singh (1990) surveyed the availability and use of teaching aids in middle and secondary schools of Jammu & Kashmir, Kerala Orissa, Uttar Pradesh and concluded that Kerala is the state which makes the maximum use of the teaching aids. It is also the state where adequate teachers are trained in the use of teaching aids. Audio cassettes were also used in teaching of music. Schools in Orissa made the use of films relevant to classroom teaching.

Solachi (1991) conducted a study on availability and utilization of education technology in the higher secondary schools of a district in Tamil Nadu. The study revealed that the utilization rate was higher in urban schools as compared to rural schools. Government and aided schools also differed in their utilization rate. The aided schools did a better job. Between boys and girls schools, the boys schools utilized educational technology more. Science teachers as compared to Humanities teachers utilized more of non-projected and projected visual aids. They also utilized more of community resource technology.

Anuradha (1991) conducted a study on children’s television-viewing behaviour and its effect on personal and educational development. The objectives of the study were to develop tools to measure television-viewing behaviour and attitude towards television-viewing and to compare parents’ and
children’s viewpoints with regard to television-viewing. Anuradha found that a majority of children disagreed that television affected their school work and that they became disinterested in social work; they felt that television-viewing helped a lot in school work, and they gained more knowledge and consequently got good marks. Hubbard (1991) also pointed out the need for greater involvement of computing skills in teacher education and the potential beverage for instruction not only for science teacher but also for the art teachers.

Idayavani (1991) conducted a study on developing a video programme on weathering and work of rivers in physical geography for higher secondary students. The objective of the study was to find out whether the higher secondary students improve their achievement after viewing the video programme and found that the higher secondary students taught by the video method performed better then the student taught by the traditional lecture method.

Jeyamani (1991) conducted a study on effectiveness of the simulation model of teaching through computer assisted instruction. The objectives of the study were to find out the effectiveness of the simulation model of teaching as compared to the traditional method and to utilize the growing use of computers in education. On the basis of the research findings, it
was concluded that the experimental group performed significantly better than the control group.

Kalimuthu (1991) conducted a study on developing a video programme on environmental pollution in biology for higher secondary students. The objective of the study was to find out whether the video method is more effective than the traditional lecture method in teaching the concepts on environmental pollution and found that the higher secondary students improved their achievement on environmental pollution after viewing the video programme.

Mishra (1991) conducted a study on role of television in diffusion of have making products among urban housewives. The objective of the study was to determine the extent of exposure of urban housewives to different mass media for obtaining information on home management practices and found that formal and informal mass media sources and their use influenced the adoption behaviour of urban housewives.

Narayanasamy (1991) conducted a study on enrichment of vocabulary of standard VI students through video. The objective of the study was to prepare video lessons for Standard VI student son certain common topics such as weekly market, village, town, and animals. He found that the students learned more words in Tamil language when they were taught by video
lessons and the students improved their vocabulary in Tamil language after viewing the video programme on language development.

Pillay (1991) conducted a study on relevance of the course on audio-visual education in the B.Ed. programme to the present day educational technology requirements. The objectives of the study were to find out the modern educational technology required of a classroom teacher and to suggest a course on modern educational technology suitable for filing up the gaps identified. The study indicated that though teachers, teach-educators, and heads of schools differed in their requirements, they invariably expected higher educational technology requirements.

Singh et al. (1991) took up the study to see the effectiveness of computer assisted instruction in teaching mathematics. He found that students who used the computer scored significantly higher than those taught through the conventional method.

Sinnathambi (1991) conducted a study on developing a video programme on energetics in chemistry for higher secondary students. The objectives of the study were to find out experimentally whether the video method is more effective than the traditional lecture method in teaching the concepts on
energetics and to find out whether the higher secondary students improve their achievement after viewing the video programme on energetics. Sinnathambi found that the students who were taught by the video method learned more concepts on energetics than those who were taught by the lecture method and the students improved their achievement on energetics after viewing the video programme.

Biswal (1992) conducted a study on educational telecasts. The objectives of the study were to identify areas for research studies in educational television and to identify priorities of research topics and found that researchers are very much essential to enable educational television to attain its desired objectives, study of the existing system, in terms of the needs of the audience, finding the gaps, if any, and organizing them systematically.

Dharunkar (1992) conducted a study on education in the Marathwada region newspapers. The objectives of the study were to survey educational news coverage and to suggest ways to enlighten the masses for excellence in education. The study indicated that exposing educational scandals had become a regular phenomenon in the regional press. The practice of giving donations to seek admission to private engineering and medical colleges had been also seriously criticized. The Maharashtra
Times had published a news feature in the series entitled ‘Mantri Bole College Khule’.

Ghosh (1992) conducted a study on educational reporting on television in Tamil Nadu. The objective of the study was to report quantitatively as well as qualitatively about the nature of educational reporting on television in Tamil Nadu State and found that as regards quality, the UGC programmes were technically sophisticated specially when the foreign made programmes were shown. The Indian programmes on art, history and science were also regarded as good quality programmes.

Harjal (1992) conducted a case study on science broadcasts. The objective of the study was to survey and understand the procedure of preparing the science programmes broadcast by all India radio and found more than half of the respondents felt that the science programmes improved their knowledge.

Jaiwal (1992) conducted a study on higher education science education television programmes in terms of their contents, presentation, students’ reactions and effectiveness. The objective of the study was to analyze the higher education science educational television programmes in terms of their contents and presentation and found that the majority of programmes (80 to 88%) had followed a logical sequence in
presentation; had covered the teaching points adequately, and had used languages appropriately.

Kapadia (1992) conducted a study on the impact of television on students’ learning: an exploration. The objective of the study was to find out the comparative effectiveness of the telefilms and the tape-chart programme and to get the opinion of students and teachers regarding the two media used. The study indicated that the telefilm was found more effective in both the groups than the tape-chart programmes in terms of achievement scores as well as retained knowledge.

Becker (1993) stated that teacher’s attitudes towards technology must be favourable in order to achieve successful professional development programs that aim at long lasting effects on the standards of student accomplishment.

Desai (1994) studied the effectiveness of graphics and projected aids in teaching food and nutrition. He found that both were effective, though graphic aids were more effective than projected aids. Students with higher IQ and socio-economic status secured more on achievement and retention than those with lesser IQ and socio-economics status. When opinion of the students was sought they observed that graphics and projected aids helped in learning.
Hoffman (1994) accepted that internet is the largest information network of the network uniting people and computer around the globe. It is a powerful communication tool, a giant information super highway system connecting computers and the local, regional and global network together.

Parhar (1994) a study of effect of media on student learning. It was found that out of 20 schools surveyed only 4 were using school television programmes fully. Video and audio cassettes players were not used. No teacher was found to be trained in the use of school television programmes.

Purushothaman and Stell (1994) studied the effectiveness of teacher control interactive video for group instruction, and found that it yielded better academic achievement as compared to the traditional method.

Singh (1994) studied the effectiveness of UGC countrywide classroom programme on models of teaching with interactive mode and without talkback. He found that they group with interactive mode and one without talkback differed significantly. The achievement of the interactive group was significantly higher than the achievement of the group without talkback.

Anderson (1995) suggested that perceived knowledge rather than experience is a predictor of micro computer anxiety.
and the computer anxiety affects the ability of individuals to use computer. Barker (1995) examined that information technology such as computer mediated communications, electronic publishing, intelligent agents, video conferencing, video on demand, and virtual reality are growing and maturing to produce, intelligent multimedia virtual classrooms.

Joshi and Mahapatra (1995) undertook a study relating to effectiveness of computer software. They found that students taught through software package significantly did better than those taught through conventional method. Kothari and Chowdhari (1995) studied the impact of television programmes on behaviour of students of different age levels, and they found that girls had more positive effect on their emotional and creative behaviour than boys. As regard the impact of television programmes on moral behaviour, negative effect was more than the positive one.

Sahoo and Mallick (1995) in their study found out attitude of lower primary and upper primary school children’s on educational television programmes. They found no difference, however acquisition with educational television made them favorably disposed towards educational television sex-wise students also differed. Sahoo (1995) conducted a study on appraising impact of UGC television programmes and found that
programmes had positive effect on student learning. However, no gender difference was found in the learning of students.

Sharma (1995) studied children’s reaction on mass media communication and found that children had difficulty in understanding formal English and Hindi, but liked television as it kept them attentive. Language styles were beyond the linguistic competence of young children. The disclaimers used were in passive voice, elliptical and semantically complex.

Singh (1995) studied the effectiveness of UGC countywide classroom programme on models of teaching with interactive mode and without talkback. He reported that the group with interactive mode and one without talkback differed significantly. The achievement of the interactive group was significantly higher than the achievement of the group without talkback.

Singh (1995) compared the effectiveness of discussion method and traditional method at the B.Ed. level. He reported that the group taught through discussion method performed better than the one taught through traditional method. The study touched the soft side of educational technology and was an attempt to probe deeper into technology of education. Active participation helped in both assimilation and retention aspects of learning.
Singh (1995) developed study material relating to video instructional package for teaching environmental awareness. It was field tested and used in three schools in Gujarat, Uttar Pradesh and Rajasthan, and was found to be very effective and interesting. The study also reported that students enjoyed working through video package.

Chandra and Pandya (1996) studied the effect of video films for imparting legal education and found that students of science stream achieved higher than students from the arts stream. Similarly, those students who had studied in English medium schools did better than those who had studied in vernacular schools.

Kaswakar (1996) studied the effectiveness of multimedia package to develop population awareness and found that it was significantly effective in comparison to actual methods, and developed awareness to a significant degree. Multi-media package was more effective in changing the attitude of teacher trainees.

Bhangoo and Sidhu (1997) studied the impact of selected audio-visual aids on food hygiene knowledge of secondary school students. They found that students taught with audio-visual materials performed better than the controlled group.
Enigo (1997) conducted a study relating to effectiveness of instructor controlled interactive video and conventional non-interactive video. He found that instructor controlled interactive video was more effective than lecture method as well as conventional non-interactive video. Irrespective of the difficulty level of the content area contained in instructor controlled interactive, it was found to be more effective.

Kapoor and Verma (1997) studied aggression among adolescents in relation to television viewing. It was found that adolescents high on aggression scale viewed television for more hours and with concentration. They also didn’t like to be disturbed while watching television. The study however did not reveal whether television viewing increase aggressive tendencies.

Kontos (1997) opined that effective teachers need to be knowledge and skilled in the application of new technologies in order to extend teaching effectiveness. Singh and Kaur (1997) studied the impact of television programme on socio-psychological behaviour or urban primary school children. They found that the duration of television viewing did not influence viewers on quality like alertness, boldness, cheerfulness, braveness, tidiness, self-confidence, friendship and leadership.

Aggarwal (1998) studies the educational impact of television programmes on social and moral development of
women in Greater Guwahati region. She found that television exposure helped in awareness building and made them conscious about their rights and status. The study also revealed that sex, violence and offensive language made a negative impact on the viewer. This work strengthens the point that educational technology should combat the negative impact of media. Thus Gyan Darshan has special role to play.

Datta (1998) studied on instructional technology and found that most of the teachers followed direct lecture method and only asked recall questions. They seldom asked students to do something. Some asked students to read from the text. After providing feedback on their behaviour the researcher found that their behaviour improved significantly. He also found improvement in student achievement after interaction analysis was discussed with teachers.

Ilangoavan (1998) conducted a study on effectiveness of audio-video intervention in developing listening comprehension in English. He compared effectiveness of conventional teaching method with media-based non-interactive group teaching and audio video presentation as support system. It was found that media-based non-interactive group teaching was more effective in comparison to conventional teaching method. audio video
presentation as support system was more effective in enhancing retention of listening comprehension.

Kumar (1998) took up a study to look into problems and prospects of educational media. He found that teachers, by and large, had professional orientation but lacked training in educational media. Most of the teachers had positive attitude towards educational media but a few felt that they had poor media operating capability. Media utilization was found to be poor. 79% used chalk board, charts and posters. It was a meta analysis of an agriculture university. The study clearly shows that we must not relegate intermediate technologies.

Marthanda (1998) studied on effectiveness of instructional media in modifying cognitive and effective behaviour in prevention of AIDS found that the package was effective as compared with lecture method, although it compared with lecture method, although it didn’t change attitude. Audio tapes in Tamil were found more effective in retention as well as in changing attitude as compared to audio tapes, slides and posters prepared in English. The study indirectly brought into focus the communicative power of mother tongue or regional language as compared to English which is the foreign language. The study has implications for language teaching.
Neera (1998) conducted a comparative study on effectiveness of video teaching learning material, video added instruction and conventional teaching. He found students most favorably disposed towards video teaching learning material. Retention with video teaching learning material and video aided was more effective than conventional teaching. Students retained more who were exposed to video teaching learning material than students who were exposed to video added instruction. Students exposed to video teaching learning material and video added instruction were significantly different in their achievements.

Shah and Patel (1999) tryout of multimedia package in the subject of banking for the polytechnic students of Gujrat. The objectives of the study were to developed a multimedia package in the subject of banking and to tried out the effectiveness of various media components of the developed multimedia package for the students. He found that learning through multimedia package creates a long-lasting effect on the students.

Mishra and Nathpal (2002) pointed out that the internalization of values with successful learning is possible when activities were related to the child’s experience.

Behera and Roul (2004) conducted a study on performance of B.Ed. trainees in relation of their gender, academic background and types of institution. The objective of the study was to examine
the performance of men and women student teachers, science and arts background. The study was based on 650 student teachers (258 male and 391 female) from CTE and IASE of Orissa in two academic session 1995-96 and 1996-97 and found that the significance difference between the performance of female student teachers and male student teachers.

Krishankumar (2004) conducted a study of effectiveness of teaching through video. The objective of the study was to compare the effectiveness of video, video with teacher support, over the conventional method of teaching science. The study indicated that video group is higher than that of the conventional group, but it is lower than the video with teachers support group.

Lang (2004) accepted the effect of learning styles, computer attitude and classroom technology on student performance and motivation of Auburn University.

Kaur (2005) conducted a study on technology and the life of rural masses. The objective of the study was to find out the perceptions about the impact of television programmes on the life of male illiterate, female illiterate, male neo-literate and female neo-literate adults in relation to their viewing time. The sample of the study consisted of 400 rural adults included 200 illiterate (100 male and 100 female) and 200 neo-literate (100 male and 100 female) from two districts of Punjab namely Faridkot and
Hoshiarpur. Kaur found that 70% of male and 38% of female illiterate adults agreed that television viewing had improved their life-style and 60% of male and 25% of female neo-literates felt that television viewing had negatively influenced the meal times which indicates that more males than females expressed this view.

Kashyap (2006) opined that the context of global era our everyday lives are saturated with media. With the multimedia magic touch traditional educational system is turned into systematized learning contrast equipped with modern devices of education technology.

Mordecai (2006) reported that the use of internet resources in Nigerian University to enhance efficiency and effective service in academic pursuit. Multi-media approach to teaching learning aims towards making the learning as individualized and self-dependent as possible, Starting from the use of simple software like charts and pictures to the application of sophisticated hardware like computers and teaching machines did instruction the multi-media approach helps the individual learner to proceed on his learning path with his own pace according to his own needs, interests and abilities slowly and slowly then it makes him to rely on his abilities and pursue his studies independently with or without the presence of his teacher. In this way, multi-media approach to teaching-learning
can be characterized for its inherent advantages of both individual and group learning.

Helonjoy (2007) conducted a study on usage of internet: practices and attitudes of teacher trainees. The objectives of the study were to evaluate the self-efficiency of computer technologies and internet use of teacher trainees and to assess their attitude towards computers, computer assisted instruction and use of internet. The findings of the study points to the need for having more refresher or training programme for teachers to get familiar with computer. Sample consisted of 170 B.Ed. students (29 men and 142 women) from Govt. College of Teacher Education, Thiruvananthapuram and found that those who had more access to the computer having more favourable attitude towards using the computer also points to the same.

Mehra (2007) conducted a study on teacher’s attitude towards computer use Implications for emerging technology implementation in educational institutions. The objective of the study was to study the perceptions of school teachers with respect to computer attributes, level of computer competence and their access to computers. The study was based on a sample of 200 government senior secondary school teachers of Chandigarh. The findings revealed that teachers possessed fairly positive attitude towards computer uses but majority of the
teachers needs to be provided training for using computers in instructional settings.

Kannan and Husain (2008) conducted a study of effectiveness of use of computer technology in teaching the concepts of physics at senior secondary level. The objective of the study was to study how far the computers help the children in their intellectual development like critical thinking and problem solving. The study was based on a sample of 50 students and found that the computer helped the children in their intellectual development like critical thinking and problem solving.

Rajesekar and Vaijapuri (2008) conducted a study on higher secondary teacher’s computer anxiety. The objective of the study was to study the level of teachers computer anxiety and found the entire sample of teachers has high level of computer anxiety. The teachers handling the subjects of the Science group and those who have not attended any computer classes have high level computer anxiety than their counterparts in the Arts group.

Nimavathi (2009) conducted a study on developing study habits through multimedia program. The objective of the study was to prepare multimedia program for the teaching of science at secondary level. The sample of the study consisted of 180 students studying ninth standard in three different schools under
state board syllabus in Thiruvannmalai district of Tamil Nadu. The study revealed that there is no significant difference between the experimental group and control group in their study habits at the posttest. The students of the experimental group fared better in their study habits than the students of the control group. This shows that the students learning through multimedia fared better in their study habits than the students learning through the conventional method.

Rafeedali (2009) conducted a study on computer-based technology and its pedagogical utility. The objective of the study was to find out the extent of use of computer resources in the teaching-learning process among the higher secondary school teachers. The sample selected for the study was 300 teachers of higher secondary schools from the Malappuram district of Kerala and found that computer is very helpful device for evaluation but only a small percentage of higher secondary school teachers are using computers for evaluation.

Ravichandran and George (2009) conducted a study on attitude of teachers towards web-based learning. The objective of the study was to study the significant difference in the attitude of male and female teachers, aided and government teachers towards web-based learning. The study was based on a sample of 100 secondary and higher secondary school teachers. They found that
male and female, the government and unaided school teachers have more favourable attitude than aided school teachers.

Singh and Mishra (2009) conducted a study on effectiveness of e-learning: an experimental study. The objective of the study was to compare performance in theory courses, namely, essentials of educational technology and management of B.Ed. students provided interest facility along traditional teaching and B.Ed. students taught through simple traditional method. They found that e-learning may be effective in developing cognitive ability of pupil teachers.

Antonyswamy (2010) conducted a study on internet awareness and competence among high school students and teachers. The objective of the study was to find out the extent of awareness and competence of Internet among high school students and high school teachers. The study was based on a sample of 86 students from Mahiti Sindhu. The study concluded that there is no significant difference between high school Boys and Girls in terms of awareness and competence to use Internet.
2.4 TEACHING COMPETENCE

Teaching competence defined as adequacy for a task of required knowledge skills and abilities. It emphasizes on the ability to do rather on the ability to demonstrate knowledge. As such in teaching competency based teacher education has become a special designation for an educational approach. In the present scenario we need competent teachers to meet challenges of teaching learning process.

Gupta (1977) focused in his article role of education programme in teacher effectiveness that teaching competency is the more essential availability required for an effective and successful teacher.

Natarajan (1984) investigated a competency based programme in teacher education curriculum. The objectives of the study were to study the relative efficacy of competency based teacher education in the pre-service education programme of secondary school teachers and to identify factors influencing competency achievement such as social status, economic status and level of education. Natarajan found that teacher education programmes could be made more effective through a competency-based approach.

National Policy on Education (1986) has also recommended that norms of accountability should be strictly
followed with incentives for the good performance and disincentives for the non performance, Teacher education through suggested reform under NCTE may produce human teacher resources for better and brighter self-reliant future India. Teacher education is the vehicle for preparing those who wish to practice in the teaching profession.

Das and Jangira (1988) examined the effect of intervention training in the integration of the teaching competence of student-teachers. The objective of the study was the vicarious integration and summative, additive and diode model of integration of teaching skills. The study indicated that out of the four colleges of education which compared the summative model of integration intervention with vicarious integration, the differences in the mean gain scores were found to be significant only in the case of one college. It was also found that the only institution which tried out diode skill integration intervention revealed significant mean gains on the general teaching competence of the student-teachers.

Singh (1989) conducted a study on relative effectiveness of two training strategies in developing teaching competence and attitude towards teaching among student-teachers. The objective of the study was to compare the relative effectiveness of two strategies in developing competence and attitude towards
teaching among students-teachers and concluded that both the training strategies were significantly effective in developing theoretical understanding of micro teaching, general teaching competence and attitude towards teaching.

*Basi (1991)* conducted a study of the teaching competency of language teachers in relation to their job-satisfaction, locus-of-control and professional burnout. The objective of the study was to study the difference between various groups of language teachers on the basis of sex, background of school, type of school, the language taught by the teachers and their tenure of service. The findings reveals that female teachers, urban school language teachers, and higher secondary level language and higher secondary level language teachers were found more externally controlled satisfied with their jobs than the rural and high school language teachers.

*Chardenas (2000)* reported that teachers working in an open school climate were better in teaching competency and teacher effectiveness than those employed in school with autonomous, familiar controlled and class climate.

*Kumaraswamy and Sudha (2004)* conducted a study on competency of teachers of differential organizational climates. The objective of the study was to examine the effect of the organizational climate on the competency of primary and high
school teachers. They found that teachers working in open, controlled closed climates were found to be more competent in the interactive dimension than the teacher of paternal climate teachers of open climate were found to be better in this competency than the teachers in ‘closed’ climate and also of the autonomous climate.

Veer (2004) emphasized that teacher should possess teaching skills and competencies so that his task may be easy, useful and effective.

Kukreti et. al (2005) conducted a study on value and teacher competence: a co-relational study. The objective of the study was to study the value pattern of the competent and incompetent teachers. The study was based on a sample of 60 secondary schools of Banswara district and found that there is no significant difference between the value pattern of competent and incompetent teachers of secondary schools.

Kalia (2006) focused that elementary teachers and elementary principle found teacher preparation programme in Texas doing the more effective job in the competencies of the teaching method of strategies and students level.

Sabu (2010) conducted a study on in-service training programmes and teaching competence of teachers. The objective of the study was to understand the teaching competence of
teachers with regard to in-service training programmes, age, gender and type of school. The sample selected for the investigation comprised 631 teachers of 24 secondary schools in Kollam district of Kerala. Sabu concluded that there is no significant difference in teaching competence of teachers with regard to number of in-service programmes attended, age, gender and type of school.

### 2.5 OVERVIEW

By accumulating all the studies, which are discussed in foregoing pages of this chapter, investigator feels that in the present scenario when every aspect of education needs a drastic change to suit changing development of time, it is very much necessary to increase teacher competency. In the present study researcher has to find out the effect of micro teaching and use of multimedia on teaching competence of prospective teachers.

The perusal of review of related literature provides a picture reflecting on micro teaching, multimedia and teaching competence. The review of related literature pertaining to the variables under investigation provides certain indication that may be briefly summed up as under:

#### 2.5.1 Microteaching

Clift et al. (1976); Mathew R. (1978); Dwivedi, (1988); Singh, (1989); Asija, (1990); focused on the importance of micro teaching.


2.5.2 Multimedia

Teachers used different media (Dasgupta, 1988; Mehra, 1988; Mohanty, 1988; Sudama and Goel, 1988; Antonyswamy, 1989; Debi, 1989).

Teachers used broadcast programmes (Mishra, 1989; Chowdhry, 1990; Giri, 1990; Mohanty, 1990; Biswal, 1992; Harjal 1992)


Computer and Internet were used by teacher (Ajatha, 2002; Helonjoy, 2007; Mehra, 2007; Rajeskar and Vajapuri, 2008).
2008; addressed through research endeavours in different cultural settings. Moreover, no such coherent endeavour has been undertaken on prospective teachers of Haryana and hence the present study is a humble attempt to search an empirical database with certain hypotheses.

2.5.3 Teaching Competence

Teaching competence defined as adequacy for a task of required knowledge skills and abilities (Natrajan, 1984; Dass and Jangria, 1988; Singh, 1989; Basi, 1991; Chardenas, 2000; Sudha and Kumaraswamy, 2004; Veer, 2004) emphasized that teacher should possess teaching skills and competencies so that his task may be easy, useful and effective.

(Kukreti et al., 2005; Kali, 2006; Sabu, 2010) concluded that competent teachers possess higher mean scores on knowledge, creative and humanistic value than their incompetent counterparts.

2.5.4 Teaching Skill

Teaching skills has relationship with teaching competence (Brown, 1981; Rusbult and Farell, 1983; Chathley, 1984; Gandhi, 1992; Gor, 1992; Thukral and Madan, 2003; Singh, 2005).

Teaching skills promote better classroom environment (Kalan purkar, 1986; Dubey, 1989; Arockiam, 1990; Asija and

2.6 HYPOTHESES

In order to fulfil the objectives of the study, the following hypotheses were formulated and tested.

- There will no significant effect of microteaching skills on teaching competence of prospective teachers.
- There will no significant effect of microteaching skill of probing questioning on teaching competence of prospective teachers.
- There will no significant effect of microteaching skill of pupils' participation on teaching competence of prospective teachers.
- There will no significant effect of microteaching skill of reinforcement on teaching competence of prospective teachers.
- There will no significant effect of microteaching skill of recognizing attending behaviour on teaching competence of prospective teachers.
- There will no significant effect of microteaching skill of achieving closure on teaching competence of prospective teachers.
• There will no significant effect of multimedia on teaching competence of prospective teachers.
• There will no significant effect of conventional method of teaching method on teaching competence of prospective teachers.
• There will no significant interaction between micro teaching, multimedia and conventional method.
• There will no significant interaction between micro teaching and conventional method.
• There will no significant interaction between multimedia and conventional method.