CHAPTER II

REVIEW OF RELATED LITERATURE
CHAPTER II

REVIEW OF RELATED LITERATURE

II.1. Introduction

Review of the literature pertaining to a problem makes the researcher familiar with the summary of previous research, the writings of recognised experts, what is already known, and what is still unknown and untested and thus provides a background for the development of the study undertaken. This brings the researcher to the proximity of the solution. It is in this context that studies on teacher education, English language teaching and training through media are reviewed in the following pages in view of their relevance to the present study.

II.2. Studies done abroad on Media and Teacher Education

For the improvement of any educational programme, the component of teacher training is the most important. Researches in the field of teacher education have made much headway in the most of the developed countries of the world. The developing countries are also trying to update their educational systems.
During the past decade most researchers in this field have devoted themselves to devising, improving, applying and testing variety of methods of analysing classroom interaction, of the kind pioneered in the United States by Flanders (1970) and in Europe by De Landsheere and others (1973). Such work faces the dilemma that has been identified by Biddle and Dunking (1974).

Several factors apart from the weaknesses of the earlier descriptive studies of teaching have encouraged more work to be done on the analysis of classroom interaction. The tool for such analysis in the form of video and sound-tape, one-way screens, time-sampling apparatus, and more sophisticated behavior categorizations, are more rapidly available than was the case ten years ago.

S. R. Sharma (1994) has identified three trends in work of this kind at the present time, combined to varying degrees in some recently completed and current studies:

1. One such trend is in the direction of greater specialization on the theoretical and conceptual bases of empirical studies of teacher and student behaviour.
2. Another is towards the analysis of such behaviour as separately perceived by the various individuals and groups who are involved in what takes place in classrooms. e.g. students (Meghan, 1974), teachers (Jackson and Belford, 1965; Jenson and Mylov 1972) and administrators.

3. Third, there is a tendency to disaggregate 'classroom' research into more detailed studies of formal and informal teaching methods, by age groups, such as infants, juniors and adolescents, and in terms of the age, experience, qualifications and background of the teachers involved (Fritzell, 1974)

Having examined some of the trends that characterise empirical studies of teaching, we now turn to trends and innovations in the pre-service curriculum.

In a review of the state of the art of teacher education research at the beginning of the present decade, Peck and Tucker (1973) suggest that the available evidence on teacher education demonstrates the importance of seven main themes.
1. The effectiveness of what is done in colleges and universities is improved by a more systematic approach to the design of programmes, and by building in techniques such as interaction analysis, behaviour modification and micro-teaching.

2. Beneficial results flow from the attempt on the part of teacher educators to organize instruction in the college or department in accordance with the same principles as are advocated for the classroom practice of the intending teacher.

3. The use of T-groups, sensitivity training, and classroom simulation, all of which involve greater direct involvement on the part of the student in the role that he is attempting to acquire, is more effective in producing desired teacher behaviour than traditional modes of college instruction.

4. Teachers who through exposure to techniques such as those mentioned above have learned to be more self-initiatory and self-directed in their own learning, are better able to pass on these approaches to their own pupils.

5. Whilst conventional methods of teacher education do produce some sought-for results, they also have a number of unplanned consequences.
6. The virtually complete absence of any systematized attempt to train the teacher of teachers, and thus of research upon and evaluation such training, is a serious drawback to further advance.

7. The employment of 'pupil-gain' criteria for the evaluation of teacher effectiveness and of the teacher education process represents a substantial methodological advance.

More effort has recently been devoted to the institutionalization of those techniques that aim to enhance the individual student's ability to observe and comment upon his own performances, whether this is by the use of CCTV and micro-teaching episodes, or in the study of works by phenomenological philosophers, or through the adoption of a research methodology that incorporates the importance of so-called dranatural perspective (Harre and Second, 1972; Goffman, 1962).

Much of the literature to do with the changing role of the teacher and of teacher education reflects a somewhat uncritical espousal of all forms of mechanical and audio visual educational technology, with very little attention given to whether the use of such media alongside or instead
of traditional instruction (TI) produces superior educational outcomes. Evaluation of this kind poses many difficulties, but a number of useful surveys have been made in recent years. The findings of some of these reflect the conclusions of Bruner and Olson (1973) on the relative effectiveness of learning through reinforcement, modelling or ordinary language. A paper by Jamison et al. (1974) reporting a survey of evaluations of alternative instructional media (Instructional Radio (IR), Instructional Television (ITV), Programmed Instruction (PI), and Computer Assisted Instruction (CAI) showed that 'students learn effectively from all these media, and relatively few studies indicate a significant difference in one medium over another or of one variant of a medium over another'.

Jamison and his colleagues make some important points about the implications of such findings for policy. First, they reject the view that the use of more educational technology in the instructional ‘mix’ would produce substantial economies even in a labour-intensive occupation such as teaching. They argue that the purpose of technology must be not to replace teachers, but to make them more productive. So far, most alternative instructional media have been applied regardless of cost, with a view to improving quality rather than productivity. There are significant exceptions.
The British Open University, the Japanese Secondary School of the Air, and the German Telekolleg all produce ‘graduates’ at a much lower per capita cost than their traditional equivalents. Jamison maintains that if the goal in employing more educational technology was to introduce productivity improvement instead of the enrichment of quality, there might be a greater possibility of significant goal achievement.

It can be argued that teacher education would be more effective if there were in each country a number of institutions that systematically committed themselves to the design and implementation of programmes that reflected a coherent theory of instruction. A comparison of the educational outcome of such inter-institutional diversity (as compared with the intra-institutional variety, that exists today) might necessarily be impressionistic, but could yield insights of greater value than those obtained on the present unplanned diversity.

A report of an experiment in a single school (the CES, or lower secondary school intended for the 11 to 16 age group in Marly-le-Roi) which was based upon a thorough institutionalization of educational technology, has been reported by Sharma (1994).
'Technology involves the rationalisation of tasks in a school just as in a business firm. Thus the traditional separation between education for adolescents in a cloistered world, and working life for adults comes to an end. In every case, the teacher becomes a specialist in certain jobs which are entirely comparable to those performed in business life.' (p.182)

Of all the techniques currently in use in colleges and departments of education, none has attracted as much attention from researchers as micro-teaching. Developed by Allen and others early in the nineteen-sixties, and intended as a means whereby students might practise particular teaching skills with groups of students and peers, reviewing their performance with the aid of videotape feedback and tutorial advice, there are now few centres of professional teacher education that do not make use of the micro-teaching concept.

Evaluation of its effects on, for example, student confidence, the performance of discrete skills and on classroom work generally has been complicated by the large number of variations that have emerged on the original 'teach-review and analysis-reteach' sequence, and by the
attempts of some of these concerned with such variations to find a broader conceptual basis for their work than that which they see as characterising the original model (Brown and Armstrong, 1975. for example, claim that their 'Ulster skills teaching programme' is 'derived from the work of philosophers such as Othaniel Smith, Israel Scheffler and Paul Hirst, and from the Social skills model of Michael Argyle'.)

Much of the development and evaluation research undertaken to date is American in origin. (Perlber (1974) refers to a number of European Centres where active research efforts are going on — the Centre for New Learning Methods of the University of Tubingen, Osnabruch, Reutlingen, Schwabisch Gmund, Malmo, Goteborg, Singing, Liverpool and the New University of Ulster.

Extensive studies of the use of CCTV in teacher education have been undertaken by Naeslund and his associates at the Stockholm School of Education (Naesland 1969; Ljung and Naeslund, 1970; National Board of Education 1972).

Within the past decade a great deal of interest has been shown in using a wide variety of simulation and game
techniques in both pre-service and in-service teacher education (Tansey, 1969; McCormick, 1972; Selmes, 1974; Brace, 1973; Taylor, 1972). Jamieson (1973) has drawn attention to research findings that throw light on the relationship of simulation to the development of skill, identifying basic skill component as

(a) timing,  (d) anticipation
(b) cues  (e) decision making and
(c) feedback (f) transfer of learning

He shows how these have significance for the design and use of simulation.

In a number of American centres experiments are currently being conducted with printed simulation devices as part of programmes of initial training. A project at the University of Indiana included the preparation of simulated exercises in pupil evaluation (reference needed).

Performance-based or competency-based — the terms are for all practical purposes interchangeable — teacher education developed in the United States towards the end of the Nineteen Sixties as a response to an interlocking set of political, social, educational, technological and
intellectual pressures, and has for the past few years been the dominant theme of discussions about the content, organisation and control of the professional aspects of teacher preparation in that country. The movement has had remarkable little impact upon Europe. There are signs, however, of a developing interest among European programmes, and, subject to the general provisions about the future of teacher education research, it can be expected that as the knowledge base of teacher education practice is enlarged, so there will be attempts to incorporate the outcomes of this work into the planning and execution of programmes. This possibility is strengthened by the likelihood that the research best able to obtain project funding will be that which promises usable results, of a kind that lead to the improvement of teacher education.

The literature of Performance Based Teacher Education (PBTE) is already enormous. Houston (1974) in book of 452 pages on the subject lists in excess of 700 references. A great deal of what has been published consists of exhortatory and descriptive statements, records of the experience of particular institutions and authorities in the design and implementation of programmes, lists of performance objectives and criteria, instruments for the purpose of evaluation and,
finally, criticisms of the PBTE concept as a whole and of particular aspects of it. There is a trend towards more systematic research on PBTE, particularly in respect of the means of evaluation employed. The models developed by the University of Georgea in America (1980) highlights four competencies namely i) teaching plans and materials ii) classroom procedures, iii) interpersonal skills and iv) professional standards.

Pandey (1958) found professional knowledge, vocabulary, inferential reasoning, numerical skill and reading comprehension significant variables of teacher effectiveness. Perhaps the most extensive and sophisticated example of this genre was the monumental Commonwealth Teacher Training Study.
(Charteers & Waples 1929) which used exhaustive and meticulous procedures to produce a number of lists varying lengths. The top 6 on list of 25 were: i) adaptability, ii) considerateness, iii) enthusiasm, iv) good judgement, v) honesty and vi) magnetism.

Some studies have compared methods of judging teaching success. Bach and Tudhope compared students' teaching ratings with subsequent ratings in the field. Jones, Lins and Barr studied the relationship between pupil gain and other criteria. Von Haden, Webb and Nolan also compared various methods of judging success, which did not correlate highly with other criteria of success. Some studies indicated correlation among the ratings of various administrators, supervisors and authorities. Barr holds that a composite criterion or pupil achievement measures of qualities and rating scales was the best measure of teacher effectiveness.

Studies on teacher effectiveness have made use of different methods: direct observation and indirect measures of teacher effectiveness. Ryan by direct observation tried to describe or measure major behavioural characteristics of teachers to determine the extent of relation between this and teacher effectiveness. He grouped the behaviour characteristics of teachers into two major categories.
1. Those involving teachers' mental abilities and skills and understanding of psychological and educational principles and his knowledge of general and special subject matter to be taught.

2. Those qualities like interests, attitude, beliefs, his behaviour, relationship with pupils and others. These qualities reflect personality.

Dunkum William (1979) studied the achievement and student teacher verbal interactions in high school Physics lectures with and without computer stimulation demonstration experiment and found that the computer aided learning did not improve students' short term learning of the content of Physics lectures.

The University of Toledo (1980) reported that an increase in academic time, student involvement, teacher structuring and student freedom provide optimum settings for student gain. In general, studies indicate that teacher behaviour in the classroom is compounded of several interrelated factors which results in a unique final product.
Prakasham N. (1986) studied the effect of school organisation climate and teaching competency. Teachers in open climate were better than those in autonomous, controlled, paternal and closed climate. There was a positive, significant relationship between teaching competency of teachers and different types of organisational climate.

II.3. Studies in India

Educational Technology has a brief but active history in India. In fact, the first organised effort to promote and disseminate the message of first through programmed learning and later through other applications.

The expansion of pre-service teacher education to meet the needs of unprecedented expansion of education in the post-Independence period and the increased focus on in-service education of teachers on a continuous basis brought in its wake concomitant problems relating to the quality of teacher education in the country. Different Education Commissions and various Educational Policies, NCERT, SCERT, NCTE, etc. have voiced this growing concern. The quality concerns led to research, investigation and experimentation for improving the effectiveness of pre-service and in-service teacher education.

45
The present review purports to discern trends, identify gaps and visualize future research needs in pre-service and in-service teacher education and the application of Educational Technology in the field of Teacher Education.

Due to the active encouragement, notably by the Department of Teacher Education, NCERT and continuous utilization by the Technical Teachers' Training Institutes as also the University of Indore and the CASE, Baroda, micro-teaching has become very popular. Low-cost equipment was successfully tried out for an Indian model of micro-teaching. Micro-teaching tries to divide teaching in smaller and manageable chunks and allows opportunity for the teacher to plan, teach, reteach and replan teaching and develop teaching skills like questioning, communication, management, etc. There are several (op — , — , and — ) studies in this innovative training method. 

The NCERT, in collaboration with the Department of Education, Devi Ahilya University, Indore, have initiated some experiments in strategies for training student-teachers in Models of Teaching. They report a willingness of teacher-educators to implement models of teaching in teacher-training institutions if the supports services are available.
McGeorge and C. L. Anand, in their study 'Effect of Micro-teaching on Teaching Self-concept and Teaching competency of Student-teachers' found that there was significant difference between the mean gain scores in teaching competencies of the control group and the experimental group of student-teachers. Micro teaching proved effective in improving the teaching competence of student-teachers.

K. Mathew (1980) identified desirable teaching competencies of a teacher in the context of certain presage, process and product variables. Fourteen factors were identified. They were interpreted as general teaching competency, competency of the teachers' concern for students, competency of using audio-visual aids, competency of professional perception, competency of giving assignment, competency of illustrating with examples, competency of pacing while introducing, logical expression, classroom management, use of questions, initiating pupil participation, use of blackboard, recognising attending behaviour and competency of achieving closure. The competencies identified through factor analysis related very closely with those expected of the teachers by the students.

The notion of competence must be linked in some way to the focus of this thesis—i.e., the use of media.
B.K. Passi and S.K. Sharma (1982) also studied the Teaching competency of Secondary School Teachers. The teaching competencies identified by them were giving assignment, loud reading, asking questions, introducing a lesson, managing the classroom, clarification, secondary loud reading, using the blackboard, using reinforcement, pacing, avoiding repetition, consolidating the lesson, dealing with pupils' responses, improving pupils' behaviour, audibility, using secondary reinforcement, recognizing pupils' attending behaviour, presenting verbal mode, and shifting sensory channel. They also found that there was no significant difference in the language teaching competency of the student-teachers of the experimental and the control groups in the real classroom condition.

S.D. Bhat (1982), in his study, 'A Study of the Effect of Simulation on Performance of Teacher Trainees in Educational Psychology' found that the combination of PLM and simulation led to a significantly superior performance by the trainees as compared to those who underwent the instructional treatment of only PLM or only structured lecture. He also found that simulation combined with the PLM led to a significantly superior performance by the trainees as compared to those who were taught through simulation combined
with structured lecture. The educational implication of the study lies in bringing out improvement of the instructional system with the use of an appropriate combination of different methods/techniques of instruction like simulation and its combination with PLM.

Ravishankar (1982) reported that audio-visual were frequently not used as part of training programme of teachers. Teachers' apathy to the use of audio aids needs more serious investigation than their expressed views on 'lack of time or funds'.

Krishnan (1983) developed a 'Multi-media package for Teaching a Course on Audio-Visual Education', including programmed slides, programmed print material, non-projected visual aids, self-instructional material with manuals for practical exercises, self-evaluating unit tests, feedback, etc. and found it quite effective. As Krishnan also used a single-group approach, its efficacy vis-a-vis any other teaching strategy cannot be commented upon. The implication of the study was that multimedia package in modular form could be used for training programmes in vocational institutions.
In an interesting use of self-instructional material with in-service secondary school mathematics teachers, Baikeri (1983) used it for micro-teaching of some skills. The material consisted of two handbooks with audio cassettes. The remedial SIMC was successful in improving the competence of in-service teachers in all skills, except the use of blackboards. The participant teachers received the package well.

Sangnan (1984) reported better performance of B.Ed. students who learnt through PLM developed in linear style when compared to the achievements of the students who were taught in the usual classroom.

In testing the self-instructional modules developed in educational psychology for B.Ed. students, Lakshmi (1985) found PLM as a basic component of modules as a successful strategy. Facility with the language -- in this case English -- affected self-learning on the part of pupils from the modules.

In the correspondence course, Kumar et.al. (1986) appreciated the contact programmes and use of audio-video tapes by B.Ed. students. They reported that tutors did not provide comments on the assignments, which were not returned promptly either.
Rani Padmini (1993) studied 'The Efficacy of Audio-Cassettes in Modifying the English Pronunciation of Teacher-Trainees'. One of her objectives was to study the effect of audio-cassettes in modifying the English Pronunciation of the Teacher-Trainees. She used the audio cassettes produced by Central Institute of English and Foreign Language, Hyderabad, India and The Directorate of School Education, Government of Tamil Nadu, India as the tools for her study. For this study 'Before-and-after control design' was used. In this design, a single test group was selected and the dependent variable, that is, the proficiency of the Trainees in English Pronunciation was measured before and after treatments. The main findings of the study are: (i) the considerable improvement has been noted in the trainees' articulation of certain sounds after exposure to the audio lessons; (ii) the mistakes in sentences have been reduced to a great extent after the treatment; (iii) pronunciation instruction through audio-cassettes has equal effect on either of the rural and urban students as the difference is not significant; and (iv) a close observation of the trainees suggested that they were keen on improving the pronunciation and evinced great interest in listening to not only the presenter's pronunciation but also their own recorded utterances as a means of obtaining feedback.
Rajammal (1994) studied Concept Mapping as a Strategy for Teaching Psychology to B.Ed. Trainees. She has found out that the mean difference between the pretest scores of achievement in psychology is not significant. The Experimental group and Control group differ in the post-test achievement scores. The students exposed to teaching through concept mapping score better than the students exposed to teaching without concept mapping. The researcher argues that the above results indicates clearly the superiority of concept mapping as a teaching strategy in teaching Educational Psychology at the B.Ed. level. But, this is not a technology or media-based strategy and, therefore, not directly relevant to your study.

E. Ananthi (1994) found that there is significant relationship between achievement motivation and the criterion variable of teacher effectiveness of B.Ed. students. She also suggested that more research for identification of many more factors which might influence teacher effectiveness must be done.

K. Sarvath Fathima (1995) concluded that Self-esteem and Self-perceived Self-efficacy was found to have a partial relationship with student-teachers' teaching competency.
J. Krishna Moorthy (1995) studied the impact of audio-cassettes in developing English Pronunciation of Secondary Grade Teacher-Trainees. He found that the post-test performance of the secondary grade teacher trainees with reference to pronunciation is significantly higher than their performance in the pre-test without the above strategy.

II.4. Studies on Variables

II.4.a. Intelligence and Achievement

The importance of intelligence as a contributing factor towards achievement is time and again researched upon. Among the recent studies under consideration, those which have considered intelligence as a variable towards achievement are Agarwal (1973), Das (1975), Girija (1980), Shanmugasundaram (1983), Singh (1983), Deshpande (1984), Patil (1984), Rajput (1984), Singh (1984), Sween Misra (1986), and Singh (1986). All the studies have shown that intelligence, in general, is a factor contributing towards achievement.

Knight (1922), Somer (1923), Adval (1952) found intelligence also as a relevant factor affecting teacher effectiveness.
Morch and Wilder (1952) reviewed 55 students on the influence of intelligence on teaching competency, some negative and some had non-significant correlations, showing thereby, the non-existence of any apparent pattern in the relationship.

To Getels and Jackson (1954) who reviewed studies on the correlation between intelligence and teaching success it seemed unlikely that there could be a strong, consistent association between general measures of cognitive ability and achievement and the ratings of teaching success.

Sherry (1944) found intelligence, emotional quality, attitude towards children and professional skills important predictors of teaching competency.

Suraj (1965) studied the relationship existing between teacher trainees' intellectual efficiency, self-acceptance and teaching skills. The predictive value of intellectual efficiency for determining teaching skill was found to be much more than that of self-acceptance.

Deva (1966) found intelligence, as a relevant factor affecting teacher effectiveness.

Kaul (1972) has found popular teachers at the secondary level to be more intelligent.
D.K. Tharyani, Pramod Kumar and D.N. Mutha, M.L. Wangoo, Kaul and Mehta found intelligence a significant determinant of teacher effectiveness.

Mehta (1972) identified intelligence as one of the predictors of teaching skills.

Vyas R.P., (1982) examined the relationship of certain predictors including verbal and non-verbal intelligence and found that verbal and non-verbal intelligence were found significantly related to supervisor's rating and total practical assessment.

Pramod Kumar and D.N. Mutha (1985) studied the relation between intelligence and teacher effectiveness among teachers and found that effective teachers tend to be more intelligent than non-effective teachers.

D.K. Tharyani (1986) in his study of 93 students of KK College of Education, Pune, found the intelligence of the teacher trainees and knowledge in their subject area a useful predictor of teacher effectiveness.

Singh R.S. (1987) studied the relationship between teacher effectiveness and intelligence among teachers at higher secondary stage and found that intelligence was correlated with teacher effectiveness.
E. Ananthi (1994) found that the factors of intelligence have high correlation with teaching competency.

II.4.b. Attitude towards Teaching and Teaching Competency

While analyzing personality factors in relation to scholastic achievement, it was observed by Draught (1938) that pupil's attitude towards academic work is related to their achievement in academic subjects.

Elliason and Martin (1940) summarizing their research concluded that interest in teaching and attitude towards teaching were significant factors associated with teaching success.

Rostkar (1945) and Hellifitzsch (1945) agreed that attitude of teachers towards teaching was significantly correlated with teaching success as judged by pupil growth.

Fuller (1946) found no significant relationship between attitude scores and self-ratings and supervisor's rating of student teaching.

Samantaroy (1971) found that there exists some degree of positive relationship between teachers' attitude towards teaching and teaching efficiency.
Vashishta (1973) found that attitude towards teaching was the best predictor for predicting teacher effectiveness.

According to Mehrotra (1973) teacher programme generates a favourable attitude towards teaching, more so in women and science students.

Singh (1974) found that there was a significant relationship between attitude towards teaching and teacher effectiveness.

Ahluwalia (1974) found that the nature of the training programmes provided by different institutions either increase or decrease the student teacher favourableness towards teaching.

Malhotra (1974) and Gupta (1977) found that success in teaching was significantly related to professional attitude.

Sukhwal (1977) found that trained teachers had more positive attitude than untrained ones.

George and Joseph (1978) found no significant difference between the B.Ed. trainees before and after the micro teaching exposure in their attitude.

Sunanda Gosh (1982) tried to assess the relation between student teachers attitude and performance in theory and practice of teaching and found that they correlated negatively. Vyas R.P. (1982) examined the relationship of certain predictors including attitude towards teaching with teaching success criteria like supervision ratings, total practical assessment etc. Attitude towards teaching and academic achievement showed significant relationship with the criterion variables but not self-perception.

Vimala Mahesh and Alka Saxena (1983) studied the effect of practice on teaching efficiency and teaching attitude of B.Ed. students. They found that practice teaching of B.Ed. course brought about positive and statistically significant changes in attitude and teacher effectiveness.
S.P. Anand (1986) studied the relationship between attitude of teachers towards students and their job satisfaction, assuming that a teacher’s job satisfaction is a result of his working at the optimum level of his efficiency and effectiveness. He found that the two are positively correlated and pupil-teachers outnumbered practising teachers in having a positive attitude towards children.

In an NCERT (1986) study on the correlates of teacher performance in a stimulated teaching setting, it was found that student teachers of high teaching attitude can give better performance through stimulated teaching.

Singh R.S. (1987) studied the relationship between teacher effectiveness and the various variables including attitude towards teaching profession and found that attitude towards teaching appeared to be correlated with teacher effectiveness.

Dr. Kanwanjit Singh and Dr. Agyajit Singh (1988) studied the impact of teaching practice on student-teachers’ attitude. Studies by Wandt (1988), Ryans (1960), Koul (1973), Quraishi (1975) and Mann (1978) indicated that successful teaching was significantly related to favourable attitude towards children.
and teaching profession. They found that there was an insignificant change towards favourableness suggesting that the training program was inadequate and had to revamped.

Dr. R. S. Singh (1990) studied teacher effectiveness as related to their attitude towards teaching profession. He found that rural and urban teachers do not differ significantly on their attitude score towards teaching profession. Rural teachers' attitude towards teaching was significantly related to teacher effectiveness but this was not so in the case of urban teachers.

S. V. Bhaskhar Reddy and C. Raja Mouli (1990) tried to determine the degree of relationship between a teacher's age, sex, training and years of teaching experience and attitude towards teaching and found out no differences among teachers in their attitude towards the teaching profession because of the factors considered.

Dr. S. Sundarrajan et al. (1991) studied the extent to which B.Ed. students were favourably disposed towards teaching and found 95.04% of B.Ed. students had a favourable attitude towards teaching. Negative correlation was found between the student teachers' attitude towards teaching and their interest in it.
In her study, E. Anandhi (1994) found that the contribution of the variable 'Attitude Towards Teaching' was found to be negligible in the teaching competency of student-teachers.

II.4.c. Sex and Teaching Competency

Anderson (1954) found no significant difference between teachers on the basis of sex and marital status in their teaching competency.

Pachauru G.K. (1983) studied the individual and collective impact of personality factors and sex on proficiency in teaching. Female teachers were found to have greater proficiency than male teachers.

E. Anandhi (1994) found that there is significant relationship between intelligence, teaching competency, self-concept, attitude towards teaching, and achievement motivation of men and women B.Ed. student teachers. It was found that female B.Ed. student teachers were better than male B.Ed. student teachers in intelligence, attitude towards teaching, achievement motivation and teaching competency. Male Student teachers were found to have better self-concept than female student teachers. She has also found that there was no significant difference in the mean anxiety scores of men and women student teachers.
K. Sarvath Fathima (1995) found that men student-teachers had high self-esteem than the women student-teachers.

II.4.c. Major Discipline and Teaching Competency

Rajammal (1994) found that the different subject group students differ in concept mapping performance. The Tamil and English group students scored the highest and it was followed by Physical Science, Biological Science, History and Mathematics in that order. Physical Science students scored higher than Mathematics students in the concept mapping performance. Biological Science, History and Mathematics students do not differ in the concept mapping performance.

Rani Padmini (1994) found that there was no significant difference between the pronunciation of the student-teachers from English Major and the Non-English major at post-test level. There is no significant difference between History and Mathematics groups in their mean gain scores in English pronunciation. Mathematics and Biology groups showed a significant difference at 0.01 level. History and Biology groups, on comparison, showed a significant difference at 0.05 level. The audio instruction has had a better effect on the Mathematics and History groups than on the rest of the groups.
K. Sarvath Fathima (1995) found that there is a significant positive correlation between Self-Esteem and teaching competency of Maths, Mentally Handicapped and Tamil Student-teachers. There is a significant negative correlation between Self-esteem and Biology and Physical Science Student-teachers.

Krishna Moorthy (1995) found that the achievements of Secondary Grade Teacher Trainees from Arts and Science group do not differ significantly. From page 53 to here: this is simply a list of very short abstracts, not a review, nor are these studies linked in any way to the use of media.

II.4.e. Medium of Instruction and Teaching Competency

Rajammal (1994) found that Tamil and English group student-teachers differ in the concept mapping performance. This is not a technology.

Rani Padmini (1994) and Krishna Moorthy (1995) found that a comparison of the achievement made by the trainees, mediumwise, showed that there is no significant difference between the two media in their proficiency in pronunciation.
II.5. Inferences from the Studies Reviewed

From the above mentioned studies, the following inferences can be made.

i) Educational Technology has the impact on teaching competency of the student-teachers.

ii) There is correlation between student-teachers' teaching competency and their Intelligence.

iii) There is correlation between student-teachers' teaching competency and their attitude towards teaching.

iv) The variables Sex, Major Disciplines, and Medium of Instruction influence the student-teachers' teaching competency.

II.6. Conclusion

Taking guidance from the earlier researches, the investigator designed the study reported in this thesis, to throw more light on the knowledge gaps mentioned above.