

# Chapter 2

## Review of Related Literature

## **Review of Related Literature**

### **2.0 Introduction**

In this chapter the review of studies conducted in different areas related to the present problem is presented in four sections, namely, Relative Predictivity, Admission Process, Teacher Trainees and Teacher Education. Finally the implications of the related literature reviewed have been drawn for the present study.

### **2.1 Studies on Relative Predictivity**

#### **2.1.1 General Education Areas**

Essex (1980) conducted a study on comparison of the predictive validity of the new and old medical college admission test with the predictive validity of programmatic variables collected during the first two months of the basic medical science program. The predictive validity of the new Medical College Admission Test (MCAT) was examined; the validity coefficients were compared to those obtained from previous versions of the MCAT and from performance data gathered early in a first year basic science program. Data were collected from about 400 medical students, including: (1) MCAT sub-scores--biology, chemistry, physics, science problems, reading skills analysis, and quantitative skills analysis; (2) undergraduate grade point average; (3) test scores on locally-developed basic science tests, the Level III examinations; (4) scores on the Basic Science Comprehensive examination; and (5) scores on the National Board of Medical Examiners Part I examination, administered after the first year of medical school. The data were gathered between 1976 and 1980. The highest validity coefficients were obtained when total scores from locally developed examinations were used to predict performance on the two certifying examinations, the Basic Science Comprehensive and the National Board. The predictive validity of the new MCAT appeared to be superior to that of its predecessor. Further study investigating the stability of validity coefficients over several classes of students was recommended.

Hunter (1983) presented a report on the dimensionality of the General Aptitude Test Battery (GATB) and the dominance of general factors over specific factors in the

prediction of job performance for the U.S. employment service. The structure of this report is as follows: First, specific aptitude theory and general ability theory, the two theories of the relation between ability and job performance, are presented and differentiated. Second, there is a discussion of problems in the current use of the General Aptitude Test Battery (GATB) and of problems in the use of multiple cutoff scores based on small sample data. Third, there is a discussion of the dimensionality of the GATB in traditional factor analytic terms. That is, there is an analysis of the correlations between specific aptitude scores over persons. This culminates in a breakdown of each of the nine specific aptitudes and the three general ability composite scores in terms of general factor variance, specific factor variance, and error variance. Fourth, there are the data on the correlation of aptitude validity coefficients across jobs. These data tend to support the general ability theory. Further evidence for the general ability theory is presented in connection with spatial aptitude. The practical implication of these findings is that the search for applications of specific aptitudes to the prediction of job performance will require either very large sample size studies ( $N=1,000$ ) for particular jobs or the identification of special job families.

Deborah (1988) made analytical study on predicting success of pharmacy students using traditional and nontraditional measures by race. Multiple regression analysis was used to examine scores on the Pharmacy College Admission Test (PCAT) and pre-pharmacy grade point averages (GPAs) as predictors of academic success in pharmacy school. Separate analyses were made for White ( $n=471$ ), Black ( $n=54$ ), and Asian ( $n=96$ ) subgroups, as well as for the total sample of 643 students who entered the pharmacy school at a large eastern university between 1975 and 1986. The results indicate that the predictors differed significantly in importance for the three subgroups. In a separate analysis, the eight variables within the Non-cognitive Questionnaire were examined with respect to their predictive power when included in an equation with pre-pharmacy GPA and PCAT total score. One of the non-cognitive variables--understanding and dealing with racism--significantly increased the overall R squared value. It should be noted that the sample size for this study was quite small, limiting both the validity and generalizability of the findings. The small sample size also undermined the attempt to distinguish results across racial groups for the non-

cognitive variables. Implications for educators and admissions personnel are discussed.

Keller (1994) conducted a study on the effects of college grade adjustments on the predictive validity and utility of sat scores. Regressing adjusted grade point averages (GPAs) on freshman Scholastic Aptitude Test (SAT) scores and high school GPAs increases the SAT's predictive validity. However, these adjusted SATs change only a small proportion of admissions decisions, do not increase freshman grades, but do change freshman class composition in some majors and limit access of women and blacks.

Stewart (1996) worked on predicting counseling service utilization patterns with the MMPI-2 college maladjustment scale. Reports on the initial results of a predictive validity study of the College Maladjustment (Mt) Scale. Results indicate that Mt scale scores were significantly associated with total number of client contacts, number of scheduled appointments, frequency of contacts, and number of cancellations; Suggests that Mt scale has some predictive validity.

Sternberg (1997) conducted a case study on the Graduate Record Examination prediction of meaningful success in the graduate training of psychologists. The study considers the empirical validity of the Graduate Record Examinations (GRE) as a predictor of performance in a graduate psychology program. Data for 167 graduate psychology students suggest that the GRE is predictive for first-year grades but not other kinds of performance, with the exception that male performance on the GRE Analytical test was predictive.

Cubeta (2001) conducted a study on predicting the academic success of adults from diverse populations. The study assessed the predictive validity of the Risk and Promise Profile [copyright], which identifies personal and social influences on academic persistence, with diverse sample of older college students. Hierarchical multiple regression and ANOVA indicated that the profile explains significant portions of the variance associated with academic success, and that race per se should not be used to identify at-risk students.

Hartung (2005) used Person Matching to predict Career Specialty Choice. Person matching promotes career exploration and choice by linking persons to persons in

occupations based on inventory profile score similarity. We examined the efficacy of the procedure for career specialty choice. Medical students (N=196 women, 224 men) responded to the Sixteen Personality Factor Questionnaire (16PF) in their first year of training. After graduating and selecting a medical residency, members of a reference subgroup (n=62) of the total sample were matched with members of a criterion subgroup (n=358) based on 16PF score equivalencies determined by the D [2] statistic. Person matching predicted medical specialty choice 43-60% of the time. Using broader specialty group categories and adding criterion persons increased the number of specialty matches. Additional refinement and analysis should enhance the efficacy of this idiographic approach as an alternative to nomothetic P-E matching for career exploration. Future research should examine person matching in terms of consequential validity.

### **2.1.2 School Related Areas**

Harris (1974) predicted academic success in Secondary Schools from the General Technical Composite on the Armed Services Vocational Aptitude Battery. This Technical Research Report gives correlations between student scores on the General Technical (GT) composite of the Armed Services Vocational Aptitude Battery and cumulative grade point averages (GPAs). Data were collected on 911 juniors and seniors selected from a sample at 22 secondary schools in the San Antonio metropolitan area. The GT score was found to significantly relate to overall academic performance for 19 out of the 22 samples, with a median rho of .44. Results indicate that the level of relationship was not differentially affected by school-specific ethnic group composition, school expenditures or average teacher/pupil ratio. Neither the samples used nor conclusions presented in this study should be construed as representative of high schools throughout the country. Since socio economic levels represented in the various samples go from the highest to the lowest ranges, limited generalizations may be meaningful to other school districts with similar diverse populations. This is an initial report exploring the relationship between student performance on various ASVAB scales and various criteria in the civilian academic sector. Additional studies will further assess relationships across various grade levels, in differing types of training situations, and across different time spans. As such, this

first study should be interpreted as a prelude to additional and more comprehensive analyses of the Armed Services Vocational Aptitude Battery.

Mann (1984) conducted a study of the Predictive Validity of the Dallas Preschool Screening Test; and the predictive validity of the Dallas Preschool Screening Test using the Hillsborough Early Rating Scale as Criterion. The purpose of these studies was to provide information on the Dallas Preschool Screening Test (DPST). While the DPST is widely used in Texas, little research on the instrument exists. Study 1 provides data on the predictive validity of the DPST for total and component scores of the Comprehensive Test of Basic Skills (CTBS). It was hypothesized that the DPST total and partial scores would significantly correlate with the CTBS Reading Total as would a subset of the DPST subtest scores with the CTBS Reading Total score. Subjects were 107 children with Fall, 1981 DPST scores from the Center for Children with Special Learning Needs plus Spring, 1983 CTBS scores from Hillsborough County Public Schools. Although results indicated some significant correlations, the size of the correlations suggested that they have little predictive value. It is recommended that the DPST be used in conjunction with some other measure. A second study of the predictive validity of the DPST investigated the relationship between preschool performance, as measured by the DPST, and kindergarten success, as measured by the Hillsborough Early Rating Scale (HERS); the relationship between the CTBS and the HERS also was explored. Subjects were 101 kindergarten children. Results indicated that the DPST had a limited predictive relationship with the HERS and that the CTBS had only a minimal predictive relationship with the HERS. Results suggest that the use of the DPST as a predictor of later school success is questionable.

Banerji (1991) worked on predictive properties of the Gesell School Readiness Screening Test within samples from Two Treatment Contexts; the predictive properties of the Gesell School Readiness Screening Test (GSRT) were examined, taking into account the stated purposes of the test and the context of test use. Two samples were used: (1) a control sample of 55 students (21 males and 34 females) whose GSRT scores were not used for placement or tracking; and (2) a treatment sample of 70 children (32 males and 38 females) attending schools that were pilot testing the GSRT along with an extra-year tracking component for students with low developmental age scores on the GSRT (DAs). Two subgroups of the control sample

were identified: those with low DAs who were not placed in a 2-year kindergarten, and those with high DAs who were placed in a 1-year kindergarten. Three subgroups of the treatment sample were identified: those with low DAs who were placed in a 2-year program, those with low DAs who were not placed in a 2-year program, and those with high DAs who were placed in a 1-year program. Student achievement was determined in grade 1. The GSRT was found to be a modest predictor of subsequent school achievement, and the DA was a better predictor than chronological age. Predictive validity coefficients alone were not sufficient to support the use of the test in placing and extra-year tracking of students with low DAs. In addition, the classification properties of the GSRT were found to be rather weak, with a large proportion of false negative errors in identifying at-risk students on the low end of the scale. The GSRT is more suitable as a screening test than as a student placement test.

Sibley (2001) established a Curriculum-Based Measurement Oral Reading Fluency Performance Standards to predict success on Local and State Tests of Reading Achievement. Curriculum-based assessment (CBA) and curriculum-based measurement (CBM) procedures are increasingly being utilized to assess student academic skills for educational decision-making, including screening, progress monitoring, entitlement and intervention planning. At the same time, school districts are increasingly compelled to administer local and state standardized achievement tests to gather student performance data. Although the broad purpose of each assessment is the same--measure student performance within the instructional curriculum--there is usually very little understanding of the relationship between the assessment processes. With the media attention focused on local achievement test scores, little attention has been given to the role that CBM can have in predicting student performance on state and local achievement tests. Specifically, there have been relatively few attempts to establish CBM benchmarks--performance levels that can predict success on the local standardized assessment. Recent research to establish curriculum-based oral reading fluency benchmarks has been done in the states of Oregon and Alaska. The primary purpose of this study is to analyze data collected in a suburban school district in northeastern Illinois to evaluate the linkage between established CBM reading fluency benchmarks and state and local district standardized reading achievement in grades three through five. A secondary purpose of this study is to examine the predictive validity of CBM oral reading fluency relative to state and

local reading assessments. Results of predictive validity studies demonstrate strong predictive validity for CBM Oral Reading Fluency measures relative to student performance on state and local standardized achievement tests. Analysis of the linkage between established oral reading fluency benchmarks and state and local assessment in Illinois demonstrates high utility for oral reading fluency benchmarks established in other states. Finally, this study suggests oral fluency benchmarks for fourth grade reading fluency that are linked to fifth grade high stakes achievement test performance.

### **2.1.3 Teacher Education**

Butcher (1972) conducted a study on predicting Student Teacher Effectiveness. The value of four pre-training screening devices for predicting student teaching effectiveness was examined. The four activities were a) microteaching for 7 minutes, b) microteaching for 30 minutes, c) role playing using reality therapy, and d) values conflict discussion. These activities were administered to 52 undergraduates in the Brigham Young University Individualized Secondary Teacher Education Program. Following each activity, an evaluation of the participants was made. The predictive areas of evaluation included a) interaction of the participant with the students during the student teaching experience, b) interaction of the participant with other teachers during student teaching, and c) general teaching effectiveness of the participant during student teaching. Following the student teaching, an evaluation of the participants was made by their cooperating teachers. A comparison of the data revealed that the 7-minute microteaching was the most consistent predictor of student teaching success. The 30-minute session was the poorest predictor. The remaining activities proved to be irrelevant to the student teaching evaluation.

Pratt (1979) worked on a study of predictors of National Teachers Examination Scores at a Predominantly Black Institution. The Scholastic Aptitude Test (SAT) and undergraduate grade point average were examined as possible predictors of scores on the National Teacher Examination (NTE). The study population consisted of 166 education major graduates from North Carolina Central University (NCCU), a predominantly black institution, over a two-year period. The data on SAT scores, grade point averages, and NTE scores were analyzed using a multiple regression analysis. The SAT verbal, SAT math, and grade point average were found to be

significant predictors of NTE Common Examination scores for the NCCU students. The SAT verbal and grade point average were significant predictors of Area Examination scores in one area, while only the SAT verbal was significant in predicting scores in a second area. The findings indicate that SAT scores may be acceptable predictors of NTE Common Examination scores.

Twa (1980) tested models developed to predict performance in Student Teaching. The purpose of this study was to validate on a second sample of student teachers, prediction equations developed to predict performance in student teaching. The study was part of a longitudinal project. Equations tested in this study were produced in a previous study by subjecting to multiple regression techniques six biographical and 40 psychological test scores for the 141 subjects who completed their student teaching between the spring of 1974 and the summer of 1975. The prediction equations which were developed for various groups of students in that group were then applied to the data for the 200 students in a second sample to calculate their predicted grades in student teaching. The predicted grades were then compared with the actual grades received by the student teachers.

Pratt (1981) examined the relationship of the Myers-Briggs Type Indicator to scores on the National Teacher's Examination. The relationship of the dimensions of the Myers-Briggs Type Indicator (MBTI) to scores on the National Teacher's Examination (NTE) was examined. The MBTI classifies people on each of four indices: extraversion/introversion, sensing/intuition, thinking/feeling, and judgment/perception. A sample of 111 students, 90 percent of whom were black, enrolled in the student teaching semester at the North Carolina Central University (NCCU) during the 1979-80 academic year were administered the MBTI; other data, including Scholastic Aptitude Test (SAT) scores, grade point average, and NTE scores, were obtained from university records. Several stepwise multiple regression analyses were computed with the NTE common examination as the criterion variable and the four dimensions of the MBTI serving as predictors. The sensing intuitive dimension alone was found to be a significant predictor while the judging/perceiving dimension was found to significantly increase the R-square obtained when SAT scores were used as predictors. It is suggested that since certain minimum scores are required for certification in North Carolina, these results may have implications for the counseling of NCCU education majors. The data were consistent with past results

indicating that most teachers are classified as sensing types, and like most sensing types, they score below the intuitive types on a standardized test. It is concluded that the study confirms the importance of examining the interaction between the academic qualifications and the personality types of students in training as well as in selecting students.

Mamchur (1984) predicted Teacher Effectiveness and a final report on a proper linear regression approach to selection for Teacher Education in British Columbia was given out. Universities training teachers have a responsibility to select the best applicants for pre-service teacher education. This study examines the validity of the Human Relations Incident (HRI), an instrument designed to predict the effectiveness of pre-service applicants. High and low scoring subjects were selected based on their HRI scores. Their teaching effectiveness was assessed by analysis of faculty practicum reports and, in a longitudinal study, through observation, self-report, and student evaluation during their first teaching years. High scorers exhibited more effective teaching behaviors during practicum such as appearing confident, being imaginative, showing respect, being flexible, showing commitment to teaching, and having good communicative skills. As beginning teachers, HRI high scorers also tended to score consistently high on a systematic observation instrument. Longitudinal study significance was seriously affected by subject attrition due to government changes in educational funding which resulted in very few subjects being hired to teach. Further research, using a case study approach, was recommended to confirm the findings. The report contains the HRI instruments. The perceptual rating scale, behavior checklist, profile of teacher behavior observation form, and two student evaluation instruments are appended.

Olstad (1987) conducted a study on predictive validity of GPA, CAT and NTE Science Specialty Tests on Scores of a Performance Based Student Teaching Evaluation Instrument. The issues of teacher quality expressed by many of the recent national reports on excellence in education have led a number of universities and colleges to increase the admission requirements and/or the exit standards for teacher certification programs. Emphasis has been placed on higher grade point averages and demonstrated academic ability on national standardized tests, among which are the Professional Knowledge, General Knowledge, and discipline specific Specialty Tests of the National Teachers Examination. The purpose of this study was to examine

some of the criteria currently used for admission or exit standards and to seek effective predictors for student teaching success. Specifically, this study attempts to determine whether grade point average (GPA), the California Achievement Test of Basic Skills--Total score (CAT-T), and the National Teachers Exams Specialty Tests for Chemistry, Physics and General Science and for Biology and General Science predict student teaching competence as measured by a performance-based assessment instrument. A number of studies have looked at GPA and standardized test scores, specifically those core exams of the National Teachers Examination, and have concluded standardized test scores and GPA are not effective predictors for teaching success. This study on NTE Science Specialty Exams confirms these findings, in that the NTE Science Specialty Exams showed little predictive capability of these measures of academic competence. It would seem that academic competence is just one of the important criteria in selecting teachers.

Wakeford (1988) conducted a study on the incremental predictive validity of NTE Communication Skills and General Knowledge Tests Used for Admission to Teacher Education and gave out implications for Policy. The validity of the Communication Skills and General Knowledge portions of the NTE (National Teacher Examination) Core Battery as predictors of student performance was examined, including scores on the test of professional knowledge required for certification in teacher education programs. This predictive validity was compared to that of the Scholastic Aptitude Test mathematics and verbal scores and grade point averages representing the first and second halves of students' college work. A multiple regression technique was used with data from the records of 444 graduates from the University of North Carolina; data concerned the subjects' freshmen and sophomore years. Tests were not any more useful than were the grade point averages of freshman and sophomore years in predicting academic performance. The test scores did predict student performance on the test of professional knowledge. Further research is needed to determine whether such scores predict actual teaching performance. Three tables present statistical data.

Richard (1990) worked on characteristics of Minority NTE Test-Takers. The purpose of this study was to identify the characteristics of minority students who take the General Knowledge Test of the National Teachers Examination (NTE) Core Battery. Low minority pass rates on these tests demonstrate the need for interventions to

increase the supply of minority teachers. Data were analyzed to determine candidates': (1) demographic, socioeconomic, and educational background; (2) education experience in college and graduate school; (3) experiences in teacher education programs; (4) career plans and teaching aspirations; (5) and reasons for taking the test. The question of whether successful and unsuccessful NTE candidates differ significantly on these background and educational characteristics was also studied. Findings suggest that strong academic preparation and support are essential to the development of academic talent, and that increasing the pool of minority teachers translates to increasing the quality of elementary and secondary education. Also included in this report are policy implications, references, tables, figures, and three appendixes: figures and a discussion concerning the representativeness of survey respondents; the study questionnaire; and a coding of variables for regression analysis.

Riggs (1990) tested the validity of Selected Predictors of Student Success in a Teacher Education Program. The validity of several predictors was examined against multiple criteria of student program success. Subjects (N=437) were selected from about 800 students in the elementary teacher education program of a small California state university. Predictor variables for each subject included: (1) undergraduate grade point average (GPA); (2) subscale scores from the California Basic Education Skills Test; (3) prerequisite education course grades; and (4) composite scores from the National Teacher Examination (not available for all subjects). Criterion variables included: (1) grade in the curriculum and methods course taken during the last student teaching block; (2) two student teaching performance ratings; (3) positive and negative comments written on student teacher rating forms; and (4) successful completion of two quarters of student teaching. Multiple regression analysis enabled the assessment of the relative importance of the factors. The reading methods course grade and GPA functioned best as predictors of the performance criteria. Scores on the standardized tests were not significantly predictive. These results suggest that academic performance may be predictive of student teacher success, yet there is a need for further research.

Williams (1990) conducted a study on the predictive validity of the NTE for Performance in Teacher Education Programs and on the Certification Examination. The predictive validity of the National Teacher Examinations (NTE) tests of

communications skills (CS) and general knowledge (GK) as entrance requirements for teacher education programs and for later performance on the state certification examination were studied. Data were collected for 1,143 graduates of teacher education programs in North Carolina. Data collected included: (1) Scholastic Aptitude Test verbal and mathematics scores; (2) grade point average (GPA) at two points; (3) NTE CS scores; (4) NTE GK scores; and (5) NTE test of professional knowledge (PK) scores. The CS and GK scores were not found to be strongly enough related to performance in the teacher education programs, as measured by GPA, to merit their use as requirements for admission. The tests were useful in predicting performance on the NTE PK tests, the state certification examinations. Cross-validation of regression models from prior studies showed these relationships to be stable. Implications for educational policy are discussed.

Diwan (1992) studied the predictors of academic achievement of student teachers in terms of Aptitude, Attitude, Participation and Human Values. The objectives of the study were: (1) To determine the relationships between Academic Achievement in total and aptitude of the student Teachers: (2) To examine the relationship between Academic Achievement in total and participation of the student Teachers: (3) To determine the relationship between Academic Achievement in total and co-operation of the student Teachers: (4) To examine the relationship between Academic Achievement in total and dedication of the student Teachers: (5) To examine the relationship between Academic Achievement in total and nationalism of the student Teachers: (6) To establish the relationship between Academic Achievement in total and scientific outlook of the student Teachers: (7) To study the relationship between Academic Achievement in total and tolerance of the student Teachers: (8) To determine the relationship between the Academic Achievement in total and entry Level of the student Teachers: (9) To compare the Academic Achievement of Male and Female student Teachers. (10) To examine the nature of the relationship between Academic Achievements of Rural and Urban background student Teachers. (11) To study the factors affecting Academic Achievement of the student Teachers. A sample of 400 student Teachers was selected randomly from the College of Education under the jurisdiction of M. D. University, Rohtak. The Normative Survey Method was used for study. The following tools were used: (1) Personal Information Blank - developed by the investigator; (2) Teaching Aptitude Test (TAT) developed by Jai Prakash and

R. P. Shrivastav; (3) Teaches Attitude Inventory (TAI) developed by S. P. Ahluwalia and (4) Human Values Test (HVT) constructed by the investigator. The findings of the study were: (1) Highly significant positive relationship has been found between aptitude and Academic Achievement of student Teachers and total as well as in theory and practical. (2) Attitude of student Teachers had significant high positive relationship with the Academic Achievement in total as well as in theory and practical. (3) Participation of student Teachers has shown a negative relationship with Academic Achievement in total, theory and practical. However, this negative relationship has been observed more in practical than theory. (4) Human value co-operation has shown a positive relationship with Academic Achievement in total, theory and practical. However, this positive relationship has been found more in practical than theory. (5) Significant positive relationship has been found between dedication and Academic Achievement of student Teachers in total, theory and practical. (6) Significantly positive relationship has been found between nationalism and Academic Achievement of student Teachers in total, theory and practical. However, this positive relationship has been observed more in practical than theory. (7) Scientific outlook of student Teachers has shown significant positive relationship with Academic Achievement in total, theory and practical. However, this positive relationship has been observed more in practical than theory. (8) Tolerance of student Teachers has shown significant positive relationship with Academic Achievement in total, theory and practical. However, this positive relationship has been observed more in practical than theory. (9) Entry Level of student Teachers has shown significantly positive relationship with Academic Achievement in total as well as in theory and practical. (10) Student Teachers have been found significantly higher in comparison to Male student teacher in all the eleven variables viz. Academic Achievement in total, theory and practical, aptitude, Attitude, co-operation, dedication, nationalism, scientific outlook, tolerance and entry Level. (11) Student Teachers of Urban background have been found significantly better as compared to student Teachers of Rural background in the entire eleven variables, viz. Academic Achievement in total, theory and practical, aptitude, Attitude, co-operation, dedication, nationalism, scientific outlook, tolerance and entry Level. (12) Female student Teachers of Urban background have been found significantly better as compared to their Male counterparts in ten variables viz. Academic Achievement in total, theory and practical, Attitude, aptitude, co-operation, dedication, nationalism, tolerance and entry

Level, except scientific outlook where no significant difference has been found between Male and Female student Teachers of Urban background. (13) Female student Teachers of Rural background have been found significantly better as compared to their Male counterparts in ten variables viz., Academic Achievement in total, theory and practical, aptitude, Attitude, dedication, nationalism, scientific outlook, tolerance and entry Level, except co-operation where no significant difference has been found between Male and Female student Teachers of Rural development. (14a) Academic Achievement in total of student Teachers has been predicted successfully on the basis of their Attitude, entry Level, aptitude and co-operation. (14b) Attitude, entry Level, aptitude, cooperation has shown more indirect contribution than direct contribution for predicting the Academic Achievement in total of student Teachers. (15a) Academic Achievement in theory of student Teachers has been predicted on the basis of their aptitude, entry Level, co-operation, Sex, Attitude and dedication. (15b) Aptitude has shown more direct contribution than indirect, while entry Level, co-operation, Sex, Attitude, entry Level, co-operation, scientific outlook and participation. (16a) Academic Achievement in practical of student Teachers has been predicted on the basis of their Attitude, entry Level, co-operation, scientific outlook and participation. (16b) Attitude has shown more direct contribution than indirect while entry Level, co-operation, scientific outlook and participation have shown more indirect contribution than direct contribution for predicting the Academic Achievement in practical of student Teachers.

Riggs (1992) conducted an assessment of selection criteria validity for a Teacher Education Program. The predictive validities of criteria for entrance into a teacher education program were studied, based on the hypothesis that criterion specificity is positively related to the predictive validity of the selection measure. Subjects (N=512) were drawn from approximately 1,200 students in the teacher education program of a small California state university. Measures from student files included the following predictor variables: (1) undergraduate grade point average (GPA); (2) scores on the California Basic Educational Skills Test (CBEST); (3) scores on the National Teachers Examinations; and (4) prerequisite education course grades. Three composite criterion scores of performance were based on student teaching performance as measured by university supervisors and resident teachers. Univariate correlations and multiple regression enabled the simultaneous consideration of all

predictors and their relative importance. Consistent with the study's hypothesis, the methods courses were superior in their ability to account for variance in the criterion measures. Overall, GPA was also significantly correlated with all 3 criteria, but the standardized tests fell short of significance in 10 of 12 trials. Implications for selection of teacher candidates are discussed.

Mishra (1993) developed a computer based selection test for admission in to B. Ed. programme considering the predictive validity of variables, teaching aptitude, social sensitivity, general mental ability and English language ability with educational competency as criterion variable. Tests were developed in the four variables selected through Item Analysis and prediction for educational competency was done by comparing the respective test scores with year end percentage scores by students in B. Ed. program. Regression analysis was done and the findings revealed, out of the four independent variables, Language Ability, Teaching Aptitude, General mental Ability and Social Sensitivity- teaching aptitude and language ability have been found to be contributing most to Educational Competency. The highest contribution is that of teaching Aptitude, whereas, Language ability was next in contribution. Social sensitivity and general mental ability have been found to be very poor predictors. Computerized test for admission was developed using FoxPro 2.5 version.

Goel (2001) conducted a study on predicting educational eligibility of Masters of education by considering different variables, like performance at first graduation level; performance in different subjects offered in the program. Findings of the study revealed that post graduation scoring has no assurance on academic achievement at M.Ed. level. Significant correlations were found between internal and external scores of the courses, Philosophical Foundations of Education, Sociological Foundations of Education and Psychological Foundations of Education. No significant correlation was found between internal and external scores of the course Research Methodology in Education. No significant correlation was found between the scores of special area opted for internal examination and special areas opted for external examination. Between scores of the same special area there is significant correlation. Overall academic achievement of student in internal and external are significantly related. Significant mean difference was found between internal and external scores of students on all the courses and internal and external scores of M.Ed. Examination. 76% of the variance on the dependent variable educational eligibility has been

explained by the five independent variables, namely, philosophical foundations of education, sociological foundations of education, psychological foundations of education, research methodology in education and special areas. Implications of the study to various aspects of the program, like, admission process, evaluation process were discussed.

Whitener (2002) conducted a study on Pre-Service Teachers' Visual Literacy. This paper describes how staff at McKendree College in Illinois is working to improve student teachers' visual and verbal literacy skills as part of a children's literature class. It explains the importance of visual literacy in teaching and learning within diverse classrooms and the need for children to express themselves with writing and art, so teachers must understand literature and appreciate how art can be used with it. Pre-service teachers at McKendree College are given the opportunity to use art as a means of sharing points of view. They are asked to read the beach scene from "Gulliver's Travels," brainstorm, create thumbnail sketches, journal from three different characters' perspectives, and complete one, more finished, drawing. The college has found that many pre-service teachers have great difficulty accomplishing these tasks because they feel they have no art skills. It is important for them to learn that their own students will have a variety of skills and functional capabilities and disabilities, but that will not keep them from being artists unless they are told by their teachers that they are not able to be artists.

Young (2005) worked on predictive validity of Applicants' Reference Information for Admission to a Doctoral Program in Educational Leadership. Admission to a doctoral program is both an individual and a faculty activity. Individuals must make decisions to apply and faculty must make decisions about acceptance. Decision making of these different stakeholders is addressed by only limited research within the professional literature. The focus of this study is to provide information addressing this void for guiding the decision making of graduate faculty. More specifically, this study examines the utility of reference information for the selection of doctoral candidates from several perspectives. Most importantly, this study focuses on "real" as opposed to simulated selection practices by examining historical data used to make actual admission decisions. Testing Models Developed to Predict Performance in Student Teaching.

### **2.1.4 Research Trends in studies on Relative Predictivity**

Predictive validity studies were conducted to compare efficiency of older test form with newer test form of Medical College Admission Test (Essex, 1980); to predict job performance by testing specific aptitudes (Hunter, 1983); predicting success by race (Deborah, 1988); adjusting college grades to improve SAT's predictive validity (Keller, 1994); to find relationship between counseling services and maladjustment scale use (Stewart, 1996); empirical validity of GRE as predictor of performance of Psychology graduates (Sternberg, 1997); predicting academic success basing on social and personal influences (Cubeta, 2001); to predict career specialty through person matching (Hartung, 2005) in general education areas. Related to school education areas predictive validity studies were conducted on aspects like – correlation of GT scores of ASVAB and overall academic performance (Harris, 1974); predicting success of DPST and HERS as predictors of later school success (Mann, 1984); establishing GSRT's reliability as a predictor of school achievement (Banerji, 1991, Sibley, 2001). In particular to teacher education area studies were conducted related to – predicting student teacher effectiveness using microteaching, role-play and values conflict discussion (Butcher, 1972); establishing SAT scores and grade point averages as possible predictors of NTE (Pratt, 1979); to predict grades in student teaching by developing predictive equations (Twa, 1980); to assess relationship between MBTI and NTE scores (Pratt, 1981); using Human Relations Incident (HRI) validity to select best applicants for pre-service teacher education (Mamchur, 1984); to seek effective predictors at entry and exist stages for student teaching success (Olstad, 1987); to find validity of communication skills and GK tests of NTE as predictors of student performance (Wakeford, 1988); to identify the characteristics of minority students who take the General Knowledge Test of the National Teachers Examination (NTE) Core Battery, (Richard, 1990); to validate the predictiveness of different factors of different tests against student program success (Riggs, 1990); to ensure the validity of NTE tests of GK and Communication skills as entrance requirements of teacher education programs (Williams, 1990); to predict academic achievement basing on attitude, aptitude, participation and human values of student teachers (Diwan, 1992); whether criterion specificity is positively related to the predictive validity of the selection measure (Riggs, 1992); develop a computer based selection test for admission into B. Ed. (Mishra, 1993); Predicting educational

eligibility of Teacher Educator students (Goel, 2001); improving visual and verbal literacy skills (Whitener, 2002) and to decide admission into doctoral program basing on reference information provided by applicant (Young, 2005);

Tools consisted of scores obtained in respective courses, entrance examinations, activities, investigator developed tools like – Human Values Test and personal information blanks by Diwan, teachers' attitude inventory by S. P. Ahluwalia and Teaching aptitude test developed by Jaiprakash and R.P. Shrivastav etc. Data analysis techniques employed were – multiple regression, regression analysis, ANOVA etc.

## **2.2 Studies on Admission Process**

Wheat (1963) conducted a study on the utility of twenty-seven test variables for the selection of teacher education candidates at Northwestern State College, Alva, Oklahoma. In 1960, the faculty at Northwestern State College, Alva, Oklahoma, sought to develop a body of test results which they could utilize in discriminating objectively between candidates with high and low teacher potential. Test data were secured and preserved on all students who expressed intentions of entering the teacher education program of the college. After their graduation and certification as teachers, all students who had completed the program were rated subjectively by the instructors in the field of education. On the basis of potential teacher success, academic ability, personality and the ability to communicate the candidates were ranked into high, medium and low groups. By simple analysis of variance, four of twenty-seven predictors were found to discriminate significantly between high and low groups. Using all possible combinations of two, three and four of these predictors in discriminant equations, it was demonstrated that the elimination of two subtests (Minnesota Multiphasic Personality Inventory,  $H_y$ ; Heston Personal Adjustment Inventory) did not significantly reduce the efficiency of discrimination. When the data on a particular individual were obtained from the California Short-Form Test of Mental Maturity and the Minnesota Teacher Attitude Inventory and were substituted, respectively, for  $X_1$  and  $X_2$  in the following formula:  $V-0.01 = 0.0283389 (X_1 - 110.78) + 0.1655783(x_2 - 0.13)$ , where  $X_1$  is the individual's score on the CSFTMM and  $X_2$  is his score on the MTAI.  $V$  indicates the probability of the individual's belonging to the high group. The multiple biserial coefficients of correlation for this equation is 0.5910. It was recommended that further studies be made by the college

employing these two tests in a program of teacher selection and retention and since the American College Test Program is now required of all entering freshmen in Oklahoma colleges, that the data from this program be included in future studies. It was further recommended that the subjective program a teacher candidates be continued, and that a follow-up be made of the certified graduates, as a further verification of the evaluation.

Heritage (1977) conducted a validity study of admission criteria for Masters Students in a Reading Program. This study investigated the predictive validity of the admission criteria for masters' students in reading: undergraduate grade point average (GPA), Graduate Record Examination (GRE) scores, undergraduate college quality, and age. Data were gathered for 94 former masters' students at Rutgers University, including 53 who had obtained the M.Ed. and 41 who had dropped out. The graduated and not-graduated groups differed significantly only on the GRE-Verbal. For the graduated group, GPA and age yielded significant correlations with the time-to-degree criterion. The results from this study were interpreted as being consistent with those of other predictive studies in education.

Marshall (1988) worked on the recruitment and induction of "Quality" students into Teacher Education. This Case Study discusses findings from the first two years of a 6-year longitudinal study related to the recruitment, training, and retention of quality students into teaching. The paper highlights the importance of developing "adequate indicators" to gauge our conceptions of quality and provides selected, standardized instrument data from the study's population as a basis for discussing the importance of commitment to teaching. The paper also explores the value of sustained or extended recruitment as a way to develop and monitor students' introduction to the teaching profession. Finally, the paper frames these data-based discussions within a critique of current reform agendas designed to recruit quality students. Contributions toward substantive reform in teacher preparation will arise only from teacher education research which sets out to expand intellectual parameters and to bracket public sentiment.

Clark (1996) PASS Project. Proficiency-based Admission Standards System Project. Admission Standards: Content & Process Areas Proficiencies and Indicators. The Oregon State System of Higher Education is developing a new approach to admission

to any of the state's seven public baccalaureate granting institutions. This approach replaces the grade point average with proficiencies, clearly specified statements of the knowledge and skills students must master. The new system is known as the Proficiency-based Admission Standards System (PASS). This document contains the current version of the proficiencies and more detailed descriptions of each proficiency called indicators. These proficiencies are to be presented to the State Board of Higher Education in July 1996 and will then remain in the form approved at that time for 2 years for review and public response. There are 6 content and 9 process proficiency areas, with 44 proficiencies in the 6 content areas. Performance levels are being developed and piloted by teachers at 30 partnership high schools. Proficiency will be assessed through criterion-referenced tests, common assessment tasks, and teacher verifications of student proficiency. The content proficiencies are listed for mathematics, science, social science, second languages, humanities and literature, and visual and performing arts. Process proficiencies are defined for: (1) reading; (2) writing; (3) listening and speaking skills; (4) analytic thinking; (5) integrative thinking; (6) problem solving; (7) technology as a learning tool; (8) teamwork; and (9) quality work.

Khatri (1998) conducted an analytical study of selection procedure for admission in Polytechnics of Madhya Pradesh in relation to Creativity, Intelligence and Achievement. The objectives of study were: (1) To study the relationships among the performance of students on PPT, intelligence and creativity scores. (2) To study the relationships among the performance of students on PPT on one hand and achievement at high school examination on the other hand. (3) To study the relationships among the performance of students on PPT on one hand and achievement at the final examination conducted by Technical Board after one year on the other hand. (4) To study the relationships among the achievement scores at high school on one hand and intelligence and creativity scores on the other hand. (5) To study the relationships among the achievement scores at high school on one hand and achievement of mathematics, physics and chemistry in PPT on the other hand. (6) To study the branch wise the relationship among the performance of students in the final exam of Technical Board after one year on one hand and intelligence and creativity scores on the other hand. (7) To study the relationship of PPT scores, high school achievement scores, Technical Board achievement scores after one year and

intelligence scores, creative abilities (a) fluency, (b) flexibility, (c) originality, (d) total creativity. (9) To study the difference among the students of different branches of engineering with respect to marks obtained at high school level. (9) To study the difference among the students of different branches of engineering with respect to marks obtained at the pre polytechnic test. (10) To study the difference among the students of different branches of engineer with respect to intelligence scores. (11) To study the difference among the students of different branches of engineering with respect to creativity and its components (fluency, flexibility and originality). (12) To study the difference among the students of different branches of engineering with respect to achievement of mathematics, physics and chemistry at pre polytechnic test. The hypotheses of study were: (1) There is no significant relationship between Board of Technical Education achievement and high school achievement scores. (2) There is no significant relationship between BTE (Board of Technical Education) achievement and PPT scores. (3) There is no significant relationship between Board of technical education achievement and intelligence test scores. (4) There is no significant relationship between Board of technical education achievement scores and creativity scores. (5) There is no significant relationship between the scores of PPT and high school achievement scores. (6) There is no significant relationship between performance of students in the final exam of Technical Board after one year and intelligence test scores. (7) There is no significant relationship between the scores of PPT and creativity scores. (8) There is no significant contribution of intelligence, pre-polytechnic test (PPT), high school achievement, and creativity scores to the dependent variable Board of Technical Education examination achievement scores. (9) There is no significant difference among the students of different branches of engineering with respect to marks obtained at higher secondary level. (10) There is no significant difference among the students of different branches of engineering with respect to marks obtained at pre-polytechnic test (PPT). (11) There is no significant difference among the students of different branches of engineering with respect to marks obtained at Board of Technical Education examination. (12) There is no significant difference among the students of different branches of engineering with respect to intelligence scores. (13) There is no significant difference among the students of different branches of engineering with respect to fluency scores. (14) There is no significant difference among the students of different branches of engineering with respect to flexibility scores. (15) There is no significant difference

among the students of different branches of engineering with respect to originality scores. (16) There is no significant difference among the students of different branches of engineering with respect to total creativity performance. (17) There is no significant difference among the students of different branches of engineering with respect to achievement of mathematics (18) There is no significant difference among the students of different branches of engineering with respect to achievement of physics. (19) There is no significant difference among the students of different branches of engineering with respect to achievement of chemistry. The sample comprised of 403 students randomly selected from different polytechnics of M.P. Following tools were used to collect data: (1) To assess Creativity, Mehdi's Verbal Measure of Creative Thinking was used. The test-retest reliability coefficient for factors fluency, flexibility, originality were 0.95, 0.90, 0.96 respectively. (2) To assess Intelligence, Raven's Standard Progressive Matrices was used. The test-retest reliability of the test varying with age is from 0.83 to 0.93. (3) To get experts opinion and suggestion about selection procedure, a questionnaire was developed by the investigator. (4) For determining academic achievement, percentage of marks of High School, PPT, 1<sup>st</sup> year/semester of diploma course in polytechnic were collected. Mean, SD, t-test, Pearson's Product Moment correlation, ANOVA and Regression analysis were used to analyze the data. The findings of study were: (1) There is a significant correlation between Board of Technical Education achievement at higher secondary achievement. (2) There was a significant correlation between performance at BTE examination and PPT achievement. (3) There was significant correlation between achievement scores and intelligence test scores. (4) There was a significant correlation between Board of Technical Education achievement scores and creativity scores. (5) There was significant relationship between scores of PPT and High School achievement scores. (6) There was significant correlation between the scores of PPT and intelligence test scores. (7) There was significant correlation between the scores of PPT and creativity scores. (8) There was a significant contribution of intelligence, PPT, higher secondary achievement and creativity scores on Board of Technical Education achievement scores. (9) There was a significant difference among the students of different branches of engineering with respect to marks obtained at High School level. Electronics branch students were better with respect to achievement in High School. (10) The candidates offering different branches of engineering significantly differ with respect to performance at PPT. Further analysis also revealed

that differences were significant between engineering branches. (11) The candidates offering different branches of engineering differed significant in their achievement at Board of technical education examination. (12) There was a significant difference among the students of different branches of engineering with respect to intelligence scores. Electronics branch students were better with respect to intelligence scores. (13) There was a significant difference among the students of different branches of engineering with respect to fluency. (14) There was a significant difference among the students of different branches of engineering with respect to scores of flexibility. (15) There was a significant difference among the students of different branches of engineering with respect to originality. (16) There was a significant difference among the students of different branches of engineering with respect to creativity. (17) There was a significant difference among the students of different branches of engineering with respect to achievement in mathematics. (18) The candidates of different branches of engineering were significantly different with respect to achievement in physics at PPT. (19) There was a significant difference among the engineering with respect to achievement in chemistry at PPT.

Kumari (1999) conducted a study of Entrance Test Performance of B. Ed. Trainees as related to Psychological and Socio Demographic Variables. The objectives of study were: (1) To find out the effect of intelligence, creativity and self- concept on the entrance test performance of B. Ed. trainees. (2) To find out the interactional effect of intelligence, creativity and self-concept on the entrance test performance of B. Ed. trainees. (3) To find out the effect of socio-economic status, sex differences and domicile on the entrance test performance of B. Ed. trainees. (4) To find out the interactional effect of socio-economic status, sex and domicile on the entrance test performance of B. Ed. trainees. The hypotheses of study were: (1) The B. Ed. trainees with higher level of intelligence will show better performance in entrance test than the B. Ed. trainees with lower level of intelligence. (2) The B. Ed. trainees with higher level of creativity will show better performance in the entrance test than the B. Ed. trainees with lower level of creativity. (3) The B. Ed. trainees with higher self-concept will show better performance in the entrance test than the B. Ed. trainees with lower self-concept. (4) The interaction of intelligence, creativity and self-concept will yield significant effect on the performance of B. Ed. trainees in entrance test. (5) The B. Ed. trainees with higher level of socio-economic status will show better performance in

the entrance test than the B. Ed. trainees with lower socio-economic status. (6) Female B. Ed. trainees will show better performance in the entrance test than male B. Ed. trainees. (7) Urban B. Ed. trainees will show better performance in the entrance test than rural B. Ed. trainees. (8) The interaction of socio-economic status, sex and domicile will yield significant effect on the performance of B. Ed. trainees in entrance test. A Survey Method was used in this study. The sample comprised of 651 B. Ed. Trainees taken randomly from Five Colleges of Education affiliated to Kurukshetra University, Kurukshetra. Group Test of General Mental Ability by Tandon, Verbal Test of Creative Thinking by Mehdi, Self-Concept Questionnaire by Saraswat, Socio-economic Status Scale by Kulshreshta, and Entrance Test Performance taken from Gazette Notification of Kurukshetra University. The data were analyzed using Mean, S.D. and t – test. The findings of study were: (1) There is significant difference in the entrance test performance of high intelligence group and low intelligence group. (2) The creativity is found to be significantly affecting the entrance test performance of high creative and low creative groups. (3) Insignificant difference in the mean value of entrance test performance between high self-concept group and low self-concept group was obtained. High self-concept group secured higher than low self-concept group but the difference is not statistically significant. (4) Significant difference in the mean values is obtained between high intelligence high creative and high intelligence low creative groups. Also significant difference is obtained in the mean values of low intelligence, high creative and low intelligence, and low creative groups. Also significant mean differences obtained between low intelligence high creative, high self-concept and low intelligence, high creative and low self-concept groups. (5) Significant differences in the mean score of high socio-economic status group are obtained. (6) A comparison of male and female B.Ed. trainees on the entrance test performance clearly shows that two groups differ significantly from each other. (7) There exists significant mean difference between entrance test performance of urban and rural B.Ed. trainees. The performance of urban students is more as compared to rural students. (8) Various interacting groups i.e. high S.E.S. male urban and high S.E.S. male rural groups; high S.E.S. female urban and high S.E.S. female rural groups; low S.E.S. male urban and low S.E.S. male rural groups; low S.E.S. female urban and low S.E.S. female rural groups show significant difference in their mean entrance test performance.

Catherine (2005) worked on the relationship among teacher education admission, practice teaching and teacher candidate preparation, This thesis is about admission to initial teacher education program is a quantitative analysis of definitive measures of admission into education programs that are predictive of successful student teaching. The study also looks at Teacher Candidate preparedness for teaching.

Kosek (2006) studied new teacher induction practices within a selected Missouri public school district. This qualitative research study reflects upon the public school induction practices and processes as perceived by beginning traditionally certified secondary teachers and beginning alternatively certified secondary teachers in a selected Missouri public school district through theory triangulation of school language, collegial ties and re-acculturation. Malcolm Baldrige award-winning schools, new teacher induction documents from the selected Missouri public school district and new teacher interview transcript results were compared. It was determined there were no differences in school induction processes and practices in the perception of the teachers noted. The study was done in order to affect positive policy change to retain teachers. A lack of successful school induction processes and practices by school leadership is evidenced by the continuing, costly high new teacher turnover rate. New induction practices must be put into place to help reduce new teacher turnover. School leadership needs to make continual positive policy change in inducting new teachers. Recommendations to increase successful new teacher induction are included.

Tedford (2007) studied the affect of technology on California's teacher induction process. Although California has experienced an increase in candidates entering the K-12 teaching profession over the last five years, baby-boomer retirements and high turn over continue to contribute to school staffing problems that exist throughout California's diverse communities. In order to retain highly qualified beginning teachers with formalized mentoring and professional development, California's Beginning Teacher Support and Assessment program was created by the California Department of Education and the California Commission on Teacher Credentialing. All public school districts receive state funds to administer the mandated BTSA induction program; however each district has a great deal of freedom in how it delivers the program. Recent advances in technology have resulted in the emergence of programs throughout California in which technology is used as a vehicle for

delivering the BTSA induction program. This study explored the experiences of the BTSA induction program in two districts that utilize technology in innovative ways to mentor beginning teachers. How technology affects the mentoring and professional development of beginning teachers was evaluated in this multi-site case study.

Brown (2007) studied the admission process to a teacher education program. This two stage mixed methods study examined the admissions process to the OISE/UT Bachelor of Education Program for the 2002-03 year. The first stage of this research was to determine, in terms of demographics, who were highly successful teacher candidates and who struggled or failed in the pre-service program. A total of 347 students were selected for this study, 90 from the primary/junior (P/J), 92 from the junior/intermediate ((J/I), and 165 from the intermediate/senior (I/S) divisions. Pre-existing bio-data was obtained from the Registrar's office, which was used in conjunction with information from interviews 11 cohort Coordinators. The Coordinators ranked the students from 4 (highly successful) to 1 (struggled or failed) in both the academic and practicum components of the program. Seventy-five students were ranked "4" and 54 students were ranked "1" in the practicum. For the second stage, the applicant profiles were obtained for the 129 students mentioned above. A content analysis was conducted using the recording units of prior teaching related experiences and insights. Prior teaching related experiences included contemporary, children's adult, and non-class room ones. Insights included classroom management skills, broader school community, and role of a teacher and characteristics of a teacher. The categories were further broken down and statistical tests including the Pearson Chi-square and the linear-by-linear association were performed to test if relationship were statistically significant among the variables mentioned above among others, and those students who were identified as highly successful with those who struggled or failed. Students who had at least one contemporary classroom and at least one non-classroom experience as well as previous experiences with the appropriate age group were the most successful in the program. Students who had insights into certain knowledge and skills including student-centered learning, a range of approaches and an understanding of the complexity of teaching as well as certain dispositions such as determination, enthusiasm, flexibility and creativity were the most successful in the program.

## **2.2.1 Research Trends in Studies on Admission Process**

Various studies in this area concentrated on - Utility of tests variables of different admission test for selection of proper teacher candidates (Wheat, 1963); predictive validity of admission criteria for masters students in reading (Heritage, 1977); recruitment and retention of quality students into teacher education (Marshall, 1988); a new approach to admission - proficiency based admission standards ( Clark, 1996); analysis of selection procedure for admission into polytechnics of M.P. (Khatri, 1998); to find relationship between psychological and social status with entrance test performance of B. Ed. students (Kumari, 1999); to study the relationship among teacher candidate admission, practice teaching and teacher preparation (Catherine, 2005); to study the effectiveness of new teachers' induction practices of a selected Missouri Publish school district (Kosek, 2006); effect of technology on teacher induction process (Tedford, 2007); study of admission process in terms of demographics and success in program (Borwn, 2007).

Test scores on different tests conducted for admission, teaching learning purposes, Pearson chi-square, linear-by-linear association, mean SD, T-test, ANOVA, Regression Analysis, Pearson's Product Moment Correlation, Criterion Reference tests, Mehdi's Verbal Measure of Creative Thinking, Raven's Standard Progressive Matrices, Group Test of General Mental Ability by Tandon, Verbal Test Creative Thinking by Mehdi, Self-concept Questionnaire by Saraswat, Socio-Economic status scale by Kulkshetra and investigator prepared purposive tests were used for data collection. Content analysis, Mean, S.D. and t – test, Mean, SD, t-test, Pearson's Product Moment correlation, ANOVA and Regression analysis were the data analysis techniques employed.

## **2.3 Studies on Teacher Trainees**

### **2.3.1 Characteristics of Teachers**

Troyer (1986) produced a synthesis of research on the characteristics of Teacher Educators. Teacher educators can dispel commonly held misconceptions about the qualities and characteristics of teacher educators. Studies cited in this paper have presented evidence contrary to the notions that teacher educators have little experience in public schools (Carter, 19~1; Ducharme and Agne, 1982; Joyce, Howey, Yarger, Harbeck, and Kluwin, (1977), that teacher educators are more

interested in research than in teaching (Isham et al., 1981; Joyce, Yarger, Howey, Harbeck, and Kluwin, 1977; Nystrom et al., 1984), and that teacher educators are substantially less productive in scholarly publications than are their colleagues in other departments (Ducharme and Agne, 1982). In addition to correcting misconceptions, research on teacher educators can also illuminate areas in need of improvement. Studies cited in this paper, for instance, suggest that more productive collegial relationships among teacher educators may be desirable (Carter, 1981; Myers and Mager, 1980), that many teacher educators feel they could benefit from staff development opportunities (Rush and Wood, 1982), and that teacher educators need to expand their range of instructional strategies to include recent developments in teacher education (Katz and Raths, 1982; Yarger and Joyce, 1977). While a body of knowledge about teacher educators is beginning to emerge, further research is needed. Additional studies of the abilities, characteristics, expectations, and work activities of teacher educators can expand our understanding of the current state of teacher education and can help clarify the desired outcomes of teacher education programs. As we enhance our understanding of the current state of teacher education, we will increase our ability to address more complex questions and issues. For example, before complex issues such as appropriate staff development activities for teacher educators can be resolved, we must have a thorough understanding of the current role of the teacher educator, the difficulties teacher educators face, and the strengths and weaknesses they bring to the task of educating teachers. Knowledge gained through further research on teacher educators could also elucidate such issues as the influence of faculty involvement in research on the teacher education program, teacher educators' perceptions of promotion and tenure policies and consequent influences on the teacher education program, and the relationship of the teacher educator to the university and the faculty of other departments. Other complex topics in need of research are identified in Cruickshank's (1984) taxonomy of characteristics associated with the five explanatory variables in teacher education. Teacher educators' values and attitudes, their physical status, their ability to bring about student achievement, and their ability to teach students the behaviors requisite to bringing about pupil achievement and satisfaction in natural classroom settings remain unaddressed by research. The latter poses an interesting question: Now that we have some knowledge of effective classroom teaching behaviors (e.g., clarity, variability, enthusiasm), can the effectiveness of teacher educators in teaching those behaviors to pre-service

teachers be measured? Research focusing on these and other questions would provide needed insights into the teacher education program and the professoriate. Through sustained inquiry we can gain a better understanding of the education professoriate and, consequently, an improved program of teacher education.

Marso (1986) studied the influence of student characteristics on their reasons for entering Teacher Education. This study was designed to investigate the characteristics and motivations of students entering teacher training by examining the relationship between selected student characteristics and the influences or reasons given for choosing to become a teacher. The sample of 266 students beginning an introduction to education course was found to be predominantly female (80 percent) and white, from larger families (70 percent with two or more siblings), first generation college graduates (60 percent), from smaller communities (87 percent) and families of educators (50 percent), and as being influenced in their decision to teach by liking children (85 percent), by former teachers (63 percent), and by experiences with children (59 percent). Reasons given for choosing to teach were found to be related to: gender, teaching specialty, mother's education and occupation, birth order, and the earliness of and level of assurance about their decision to teach; but the reasons given were not related to students' level of aptitude or basic academic skills, number of siblings, type of high school attended, amount of teaching-like experience, or anticipated success as a teacher. Conclusions with implications for prospective teacher recruiting, selection, and retention are enumerated.

Rancifer (1992) attempted to define Teacher Education by recognizing what students expect from Educational Experiences. This paper describes a study designed to determine the congruency of pre-service student learning experiences with student needs and expectations. During the 1991-1992 academic year, 39 secondary student teachers responded to 3 analytical questions about their student teaching experiences. Responses were analyzed and ranked in three categories. In the category "Things about Student Teaching That Went Well," student teachers ranked "good relationship with cooperating teachers" first, followed by "got along with students very well." In the category "Things about Student Teaching That Did Not Go Well," they ranked "lack of student discipline" first, followed by "classroom management organizational skills." In the category "Reasons Student Teaching Did Not Go Well," they ranked "inconsistency in handling student discipline" first, followed by "teaching above

class." Ranked lowest were "lack of adequate lesson preparation time" and "lack of knowledge of computer software used by teacher." Analysis of the results indicated that since the things student teachers listed as not having gone well were subjects taught in teacher preparation courses, consideration should be given to changing the design of courses and program in two areas: improvement in courses that provide students with strong content mastery and providing intensive corrective supervision to student teachers.

Marso (1995) studied 'Teacher Recruitment Effectiveness: A Comparative Study of the Affective Attributes of Teacher Candidates of the 1980's and the 1990's'. This study compared the affective attributes of a sample of beginning teacher education students in the 1990s with a sample of beginning teacher education students of the 1980's to investigate whether or not educational reform actions were accompanied by changes in the affective characteristics of individuals entering teacher preparation. The data obtained from the two samples of teacher education students (N=393) who were registered at a large mid-western teacher preparation institution suggested that the enhanced recruiting efforts of recent years have allowed teacher education institutions similar to the one on which this study was conducted to maintain teacher candidate quality as indicated by scholastic aptitude scores without detrimental changes in the affective attributes of prospective teachers. The 1990's candidates reported levels of attitude toward teaching as a career, of concerns about surviving as teachers, and of concerns about their impact upon pupils similar to the 1980's candidates. The 1990's candidates reported less anxiety about teaching, more confidence about becoming teachers, and more concern for the actual task of teaching than did the 1980's cohorts.

Marso (1996) worked on entering personal and academic characteristics of a longitudinal sample of persisting and non-persisting teachers seven years after commencement of teacher preparation. This longitudinal study was designed to compare the academic, personal, and family characteristics of those teacher candidates persisting and not persisting through teacher preparation and the early years of classroom teaching. The candidates' (N=551) personal, family, and academic characteristics were collected upon commencement of teacher preparation. Seven years later the candidates were classified by degree of persistence as follows: not

certified as teachers (21 percent), certified but not teaching (28 percent), part-time teachers (22 percent), and full-time teachers (29 percent). The candidates' gender, major, initial extent of assurance about teaching, and time at which they decided to become teachers were found to be associated with their degree of persistence in the transition from student to teacher but not their level of academic aptitude, level of basic academic skills, and self-rating of their expected effectiveness as future teachers. Relationships between findings from the present study and findings from the National Longitudinal Survey of teacher attrition were discussed, and several implications for effective teacher recruitment were drawn including the conclusion that the "making of teachers" appears to be a high risk and costly business when only 29 percent of a class of candidates have made a successful transition to full-time teaching 7 years after the commencement of teacher preparation.

Chang (2006) studied on question, How did the OSU M.Ed. program prepare teachers to be multi-culturally competent? Researchers have explored teachers' attitudes toward issues of equity and parity. Yet only a handful of studies have connected teachers' attitudes lack their subsequent classroom practice. Related to this question, there is a need to study how teacher preparation programs have helped teachers keep up multicultural competence. The research for my dissertation is situated within a larger program evaluation study within which I have participated during my doctoral studies. I will be using some of the survey and interview data from this large project. This paper however, describes the data collected from the case studies I have been collecting in the past three quarters. Socio-cultural theorists suggest that teachers are socialized to learn as to teach. ( Zeichner & Melnick, 1996). Social interactions are considered important to generate transformative knowledge that leads to real learning. Two institutional elements are central influences in shaping social interaction and the individuals' perceptions and behaviour within them. Wenger categorizes these institutional elements as: enterprise, engagement, and repertoire. Enterprise refers to the domains of an institution (in this the M.Ed. program), engagement to the relationships among individuals in the program, and repertoire to the practices of individuals. Critical theorists bring forward the issues of power when investigating social interactions (Nieto, 200; Sleeter, 2001). Various forms of resistance happen along with the social interactions, especially there are different opinions between new comers and old timers in a particular institution. Modernists further problematize the

learning process by assuming the doctrine of multiple subjectives that usually shift and change within the social interactions. (Giroux, 1998; Kumashiro, 2001) The purpose of this study is to explore how multicultural competence was interpreted and developed by three case study participants from the OSU M.Ed. program. Related information or document about how the program has prepared teachers' practices in classroom was collected.

Geeta (2006) conducted a study on teacher characteristics and student performance in India through pupil fixed effects approach. This paper exploits unique data that permits the matching of students' test scores in different subjects to the teachers that teach those subjects. Within-pupil (across-subject, rather than across-time) variation is used to examine whether the characteristics of different subject teachers are related to a student's marks across subjects. There are four main contributions. *Firstly* the findings, using a credible methodology for identification, give only modest grounds for optimism about the effects of teacher policies. A teacher's possession of Masters level qualification and pre-service training have well identified but small effects on student achievement. While a teacher's union membership strongly reduces pupil achievement, union membership is typically not a policy variable. The bulk of the variation in student achievement is a school fixed effect and observed school characteristics explain less than 30% of this fixed effect. The *second* main contribution of the paper is to highlight the importance of 'controlling for' the non-random matching of students to schools and teachers. The finding that within-pupil effects of many teacher variables differ very significantly from the across school effects indicates that much of the extant achievement production function literature – which perforce relies on across school estimation – leads to incorrect inferences because it confounds the effect of unobserved school and pupil heterogeneity with the effect of teacher characteristics. This underlines the importance of finding credible sources of within school and preferably within-student variation in future research. *Thirdly*, the paper showcases the use of an across-subject estimator of the achievement production function which is similar to the more familiar panel data approach but which circumvents the problem of non-random attrition of students/teachers over time and the problem of non-random matching of students to teachers, and which permits the identification of teacher effects in cross-section data that are readily available. *Finally*, a school fixed effects equation of teacher pay

shows that while teacher compensation is efficient in some respects, i.e. teachers are rewarded for characteristics that raise student achievement, it is not so in other respects. In particular, union membership is substantially rewarded when in fact it is associated with significantly lower student achievement, raising the question whether teachers' right to unionize pits teacher interests against student interests.

### **2.3.2 Value of Research for Teacher Education**

Ruth (1995) reported on students' perceptions of the Research Component in Master's Level Teacher Education Programs. This report describes two studies prompted by research on rates of research use and attitudes toward research among pre-service and in-service teachers enrolled in graduate programs in teacher education. The first study asked prospective and in-service teachers to rate the importance of various research skills and to provide a verbal exposition that justified their assigned ratings. In a follow-up study, an opportunity was created for in-service and pre-service teachers to share their perspectives and opinions on the importance, relevance, and application of research skills and knowledge to teaching. The initial study included 167 students at various points of their pre-service and in-service graduate teacher education programs; most were in a Master of Arts in Teaching program. The follow-up study involved nine pre-service and three in-service discussion groups. For the initial study, a 3-part survey was developed that investigated participants' personal research skills and experiences, perceived advantages and disadvantages of research training, and descriptions of actual research experiences. Findings indicated that the most important reasons given for learning research skills was the ability to use the library and the ability to critically analyze professional literature. The least important reasons selected were publication of research findings in professional literature and knowledge of how to compute and interpret intermediate or advanced statistics. Follow-up study results were similar. Most subjects viewed research as a source for current information related to teaching practices and as a way of dealing with practical, day-to-day classroom issues.

Barbara (2002) conducted a study on determining the value of Research in Teacher Education Policy Making. This paper explains that despite the long debate over the relative value of quantitative and qualitative educational research and attempts to talk across disciplines, quantitative research dominates educational policy circles. As a

result, quality qualitative research may not enter into educational policy conversations. The paper discusses whether there are times when the research frame selected yields potential limited answers, which are later used to inform educational policy. This is the case with the Center for the Study of Teaching and Policy's (CTP's) 2001 research report, which summarizes existing research on teacher preparation. Only 17 of the 57 studies included utilized exclusively interpretive methodologies, and the authors constructed educational policy recommendations for the Department of Education using mainly quantitatively-based studies. This paper examines the selection and omission of two studies in CTP's report, asking how CTP decisions regarding these studies might miscue policymakers. It reviews the nature of paradigms and differences between positivism and interpretivism and differences in methodological preferences; examines criteria and methodology for selecting research in CTP's study; reviews the two studies to illustrate how different methodologies can present contradictory results; examines CTP's teacher education policy recommendations; and explores potential implications of paradigm privilege on future teacher education research and policy.

Protheroe (2004) conducted an analytical study on research vital to effective teaching. A decade ago, M.C. Wang, G.D. Haertel, and H.J. Walberg asked the question, "What helps children learn?" To find the answer to that question, they analyzed the contents of 170 books, compiled 91 research syntheses, and surveyed 61 educational researchers. In order to summarize their findings in a way that would be helpful to educators, they developed a 28-category framework of variables that might have an influence on learning and grouped them into six general "types of influence" on learning. What they found highlights the importance of good teaching. Of these types of influence, classroom instruction and climate had almost as much impact on learning as students' aptitude. In fact, one of the teacher-related factors-classroom management-had the most impact of all of the 28 variables. With the massive amount of research conducted in education, a meta-analysis like this, which analyzes and summarizes existing research, can be especially valuable to busy educators. While the definition of "scientifically based" research which was provided in the "No Child Left Behind" Act would exclude much of the present research, it would be shortsighted to ignore what this research says about effective teaching. In this article, and work from three major research projects are briefly summarized.

Stamov (2006) worked on the effects of instruction on Self-Assessed Research Knowledge, Ability, and Interest among Greek Music Educators. This study investigated the effects of a training seminar and selected background variables on Greek music teachers' attitudes and self-evaluation regarding research. Public school, university, and conservatory teachers (n = 41) participated in 16 hours of seminar instruction over a two-week period at a Greek university. The seminar provided an introduction to empirical research methods, testing, and basic statistical concepts and procedures and an overview of music aptitude testing and the administration of selected tests. There was no significant pre-seminar difference in self-assessed interest and ability in research between participants who had and had not taken a prior research course. However, participants with prior training scored significantly higher on self-assessed knowledge of selected research concepts. A mixed-model analysis of variance indicated that the seminar instruction was effective in improving self-assessed research knowledge and interest, and that those with previous research training improved more than those without such training.

Tanner (2009) worked on a case study to find out how engagement with research changes the professional practice of Teacher-Educators: A Case Study from the Welsh Education Research Network. Learning to teach well is a complex task. Teacher-educators have a significant role to play in enabling students to reflect critically and analyse their own practice. However, there is a danger, as a result of funding pressures and other contrary factors, that many institutions that provide teacher education will become separated from their research base. The Welsh Education Research Network (WERN) is a pilot project funded by the Higher Education Funding Council in Wales and the Economic and Social Research Council with the aim of developing educational research capacity in Wales. This paper provides an analytical account of one research group of teacher-educators funded by WERN. The case study describes the research activity of the group and the views of its members on its impact for their professional practice. Finally an analysis of the findings concludes that engagement with research has resulted in positive changes to the knowledge, skills and critical awareness of the teacher-educators which has in turn brought benefits to the learning of their students.

### **2.3.3 Technology in Teacher Education**

Wonacott (1983) conducted a study on updating teachers for tomorrow's technology: Programs & Practices. This document reports the results of work in identifying promising approaches to the provision of technological update to vocational/technical teachers, and discusses barriers and facilitators to the use of these approaches. Technological update refers to the technical knowledge and skills needed by vocational/technical teachers to provide students with the up-to-date technological preparation needed in the current work world. After information was gathered from the field, literature, knowledgeable observers, and vocational education institutions and agencies, researchers applied cost-effectiveness, complexity and locus of administrative control criteria to select those approaches that offer promise for secondary and postsecondary vocational/technical teachers. These approaches are described in general terms, and descriptions are provided of specific programs that exemplify each approach. Two different kinds of approaches were identified and are reported in the document. First, six specific delivery techniques are described: work experience internships; university and college course work; workshops, conferences, and seminars; industry observation; education and industry staff exchange; and part-time employment. Second, three different types of update programs are described: local programs, nonlocal programs, and industry training and updating programs. The result is nine descriptions of promising approaches to the task of providing technological update, each with its own potential for providing update, administrative characteristics, advantages, disadvantages, and barriers and facilitators. The need for further research on locating and generating funds for updating programs is suggested.

Fleming (1989) produced a research report on Teachers' Views of Technology. This paper reports the results of a survey of 1,200 teachers' views on technology. Using a combination of empirical methods, teachers' responses to statements about technology in contemporary society were examined. This paper describes the following: (1) new statements about technology based on the sociology of technology; (2) teachers' responses to these statements; and (3) teachers' responses compared to those of high school graduates and undergraduate science students. The paper speculates on the model of technology held by many teachers and offers suggestions for pre- and in-service education. A series of statement pairs (positive and negative exemplars) were designed to elicit teachers' responses to the issues of technology and quality of life,

technology and employment, technology and health care, technology and food production, and technology and social well-being. The responses indicated that the teachers in this sample described and critiqued technology from an artifact perspective, that they were evenly split on whether technology improved employment prospects, that medicine was the example most often cited as an example of beneficial technology, and that a technocracy was favored by half the respondents. These results were indistinguishable from the responses of graduating high school seniors.

Peck (2003) *The AECT Project: Modeling the Effective Use of Technology in Teacher Preparation*. Explains the AECT (Advancing the Educational Contribution of Technology) Project, a consortium of professional associations, businesses, and universities funded by the Department of Education's Preparing Tomorrow's Teachers to use Technology (PT3) program to provide standards for technology competencies for pre-service and in-service teachers and to meet the needs of teacher educators.

Rowley (2005) developed a New Technology Infusion Program for Preparing Tomorrow's Teachers. Many schools, colleges, and departments of education across America are currently rethinking the manner in which they are preparing tomorrow's teachers to use technology. Responding to new standards established by the National Council for the Accreditation of Teacher Education (NCATE) and the International Society for Technology in Education (ISTE), higher education faculty and administrators are searching for new models to support technology integration. This new or renewed focus is significant as institutions of higher education have an important responsibility to provide leadership for the infusion of technology into U.S. schools and to model appropriate use of technology in their own teaching (Jolly, Davis, Strader, & Denton, 1999). In the area of pre-service teacher education, it appears logical, as Wheatly (2003) pointed out, that the increased use of technology-enhanced learning practices in PK-12 teaching is more likely when prospective teachers experience and practice a variety of computer uses in the majority of their undergraduate courses. This observation is supported by the research of Thomas, Larson, Clift, and Levin (1996) who argued that training in technology use must coincide with course goals and be seen as an integral course component. While there is no single program plan or model for accomplishing such a goal, there clearly are many obstacles to overcome.

Christensen (2007) worked on 'Pathway for Preparing Tomorrow's Teachers to Infuse Technology'. The Millennium Project was funded by the U.S. Department of Education Preparing Tomorrow's Teachers to Use Technology (PT3) program for four years spanning 1999-2003. The project was led by the University of North Texas and sought to increase the quantity as well as quality of technology-infusing educators entering the workforce as classroom teachers. The Millennium Project succeeded in increasing the number of technology-integrating pre-service candidates from 20% to 80% of approximately 500 new teachers credentialed each year. Pre-post data gathered from key courses each semester verified that high quality teacher preparation practices were maintained while increases in volume took place. Data sharing with other PT3 projects helped form common grounds for discussion of similarities and differences during professional meetings and project-sharing collaborative exchanges.

Okan (2007) worked towards a Critical Theory of Educational Technology. The purpose of this study is to offer a critical consideration of current initiatives, and common sense discourses, forcing educators to adopt and integrate educational technology on a large scale. This study argues that it is time, in the relative absence of a critical debate, to ask questions that should precede a wholesale adoption of technology. It will first provide various definitions of technology including determinist and instrumentalist approaches. Then it will move towards a critical theory of technology in which the discussion is broadened to a critique of promises of technology drawing on techno-positivism as a marketed ideology. The study cites research, computer-assisted language learning in particular, to show whether the implementation of information technologies has been able to match their promises. It calls for critical awareness of how technology is impacting education and at the same time for the engagement of teachers in exploring the relevant political, economic, and cultural contexts that help shape classroom learning and teaching.

#### **2.3.4 Competencies for Adjustment of Teachers**

Brolin (1982) developed a module on 'Life Skills for Independent Living'. This module (part of a series of 24 modules) is on developing a life skills curriculum for disabled students. The genesis of these materials is in the 10 "clusters of capabilities," outlined in the paper, "A Common Body of Practice for Teachers: The Challenge of Public Law 94-142 to Teacher Education." These clusters form the proposed core of

professional knowledge needed by teachers in the future. The module is to be used by teacher educators to reexamine and enhance their current practice in preparing classroom teachers to work competently and comfortably with children who have a wide range of individual needs. The module includes objectives, scales for assessing the degree to which the identified knowledge and practices are prevalent in an existing teacher education program, and self-assessment test items. Journal articles and bibliographic references are included on teaching critical life skills to handicapped students.

Letitia (1982) worked on competencies needed for professional growth as rated by Virginia Home Economics Teachers and Teacher Educators. In 1974, the American Home Economics Association developed a basic list of pre-professional and professional competencies needed for growth in home economics. The competencies were assigned no priority rankings but were divided into five classifications: Educational Philosophy and Home Economics, Research in Home Economics, Program Planning in Home Economics, The Educative Process in Home Economics, and Professional Role in Home Economics. For this study, a preliminary list of professional teaching competencies for Virginia home economics teachers was identified. The list was based upon a combination of the AHEA pre-professional and professional competencies and was rated by teachers and teacher educators in the state of Virginia. Means were obtained to determine the highest rated competencies and a cluster analysis was performed to determine the priority rankings of the AHEA classifications of competency as stressed by teachers and teacher educators employed in various educational settings. Competency statements were ranked differently by various groups of teachers and teacher educators. Therefore, it was concluded that an examination needs to be made of the differing needs of teachers who are employed in various educational settings in order to determine the priorities to be given to each of the AHEA classifications for that particular situation. However, the AHEA competency classifications can provide a basis for planning professional classes.

Dalal (1999) conducted an exploratory study of Adjustment Problems of Professional and Non-Professional students in relation to their Self - Concept and Anxiety. The objectives of the study were: (1) To study the Adjustment of Professional and Non-Professional students of M. D. University, Rohtak. (2) To study the Self - Concept of Professional and Non-Professional students of M. D. University, Rohtak. (3) To study

the Anxiety of Professional and Non-Professional students of M.D. University, Rohtak. (4) To study the Adjustment of Professional and Non-Professional Male students of M. D. University, Rohtak. (5) To compare the Adjustment of Professional Females and Non-Professional Females of M. D. University, Rohtak. (6) To compare the Self - Concept of Professional Males and Non-Professional Males of M. D. University, Rohtak. (7) To compare the Self -Concept of Professional Females and Non-Professional Females of M.D. University, Rohtak. (8) To compare the Anxiety of Professional Females and Non-Professional Females of M.D. University, Rohtak. (9) To compare the Anxiety of Professional Males and Non-Professional Males of M. D. University, Rohtak. (10) To find the relationship between Adjustment and Self - Concept of the students of M. D. University, Rohtak. (11) To find the relationship between Adjustment and Self - Concept of the Male students of M. D. University, Rohtak. (12) To find the relationship between Adjustment and Self - Concept of the Female students of M. D. University, Rohtak. (13) To find the relationship between Adjustment and Anxiety of the students of M. D. University, Rohtak. (14) To find the relationship between Adjustment and Anxiety of the Male students of M. D. University, Rohtak. (15) To find the relationship between Adjustment and Anxiety of the Female students of M. D. University, Rohtak. (16) To find the relationship between Anxiety and Self - Concept of the students of M. D. University, Rohtak. (17) To find the relationship between Anxiety and Self - Concept of the Male students of M. D. University, Rohtak. (18) To find the relationship between Anxiety and Self - Concept of the Female students of M. D. University, Rohtak. The sample consisted of 600 students belonging to Professional and Non-Professional streams. The students from the Professional stream have been taken from 50 colleges. From each class i.e. B.Ed., M.Ed., Journalism, M.B.B.S, LL.B and Engineering and Non-Professional stream have been taken from 50 colleges. From each class i.e. B.A., B.Com., B.Sc., M.A., M.Com., and M.Sc. The students belonging to both the Sexes were taken equally by draw of lots. The following tools used were: Self -Concept Scale developed by Dutt & Chadda; Adjustment Inventory for College Students developed by Dr. A. K. P. Sinha and Dr. R. P. Singh; Anxiety Scale - SCAT (Sinha's Comprehensive Anxiety Test) constructed and standardized by Dr. A.K.P. Sinha and Dr. L. N. K. Sinha. The findings of the study were: (1) Professional students have better Adjustment than Non-Professional students. (2) Self - Concept of Professional students is better than Non-Professional students. (3) Anxiety of Professional students

is higher than Non-Professional students. (4) Adjustment of Professional Male students is better than Non-Professional Male students. (5) Adjustment of Professional Female students is better than Non-Professional Female students. (6) Self - Concept of Professional Male students is better than Non -Professional Male students. (7) Self - Concept of Professional Female students is better than Non-Professional Female students. (8) Anxiety of Professional Female students is lower than Non-Professional Female students. (9) Anxiety of Professional Male students is higher than Non-Professional Male students. (10) Adjustment and Self - Concept of all students are correlated with each other. Thus, the change in Adjustment also affects the Self – Concept but the changes appear to be around 40%. (11) Adjustment and Self - Concept of Male students are correlated with each other. Thus; the change in Adjustment also affects the Self -Concept but the changes appear to be around 40%. (12) Adjustment and Self - Concept of Female students are correlated with each other. Thus, the change in Adjustment also affects the Self -Concept but the changes appear to be around 40%. (13) Adjustment and Anxiety of all students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety but the changes appear to be around 25%. (14) Adjustment and Anxiety of all Male students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety but the changes appear to be around 35%. (15) Adjustment and Anxiety of all Female students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety also, but the changes appear to be around 70%. (16) Anxiety and Self - Concept of all students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety but the changes appear to be around 60%. (17) Anxiety and Self - Concept of all Male students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety also, but the changes appear to be around 45%. (18) Anxiety and Self - Concept of all Female students are correlated with each other. Thus, the change in Adjustment also affects the Anxiety but the changes appear to be around 50%.

Seligson (2001) worked on 'The Relevance of Self at Work: Emotional Intelligence and Staff Training in After-School Environments'. After school programs supplement students' academic preparation, provide adult supervision when parents are working, and provide an opportunity for adult social and emotional growth. This paper examines how adult educators in these programs can mobilize their inner resources

and social-emotional aptitude to achieve good relationships with their co-workers and with the children in their care. Findings of the Bringing Yourself to Work Project, a professional development program for afterschool educators at Wellesley College, provides an empirical foundation for the relevance of emotional intelligence and relational psychology at work. The paper discusses issues of self-awareness, cultural boundaries, and the potential for adults to learn relational skills.

Harrison (2008) conducted a study on 'The Formal and Situated Learning of Beginning Teacher Educators in England: Identifying Characteristics for Successful Induction in the Transition from Workplace in Schools to Workplace in Higher Education'. The report says 'We present interview data from the early stages of a longitudinal study on the emerging professional, academic identities of five beginning teacher educators. We identify the main facilitators and barriers which support different types of professional learning. Barriers in the early stages include: a reliance on trial and error learning, inappropriate induction courses, poor mentoring and support structures and relatively few opportunities for collaborative work. Facilitators include: flexible induction programmes, learning conversations with key colleagues and personal experience of learning at Masters' level. The data are discussed in relation to the described experiences of formal and situated (informal) learning. The positive impact of formal learning, as well as the capacity to "fit in", show us that "learning by participation" alone is an insufficient model to account for the complexities of becoming a teacher educator in new settings'.

Merav (2008) worked on 'From *Superteacher* to a Super Teacher: The Career Development of Teacher Educators'. The purpose of this study is to portray and understand the course of teacher educators' careers. To this end, narratives were collected from 11 teachers relating to three periods of their professional lives. The narratives were analyzed using BARTHES' multidimensional method for literary analysis. Findings show that the teachers underwent changes in their perception of themselves, of their role, and of their learners, and that they are involved in educational activity and renewal despite being in a late stage of their careers. The explanations for this phenomenon are rooted in the work environment as well as in the teachers' personal traits and biographies, which include changes and success.

### **2.3.5 Management of Teacher Education**

Dunn (1980) worked on the Instructional Support System for Occupational Education (ISSOE) project, conducted in New York. The project focused on (1) review of individualized education systems, (2) selection of appropriate occupational clusters, and (3) development and field testing of a system and materials. A product of the Managing Student Progress series of the ISSOE program, this booklet was designed to assist educators in helping students formulate goals and plans related to career and occupational decision making. The booklet explains where decision making fits into an occupational education program, and identifies and clarifies the ISSOE educator's role in career guidance. The booklet contains three sections. The first section outlines three basic models of the decision-making process and provides the reader with a philosophical foundation upon which decision making rests. The second section explains briefly five different types of supplementary teaching materials or programs which may be used to assist students in improving their decision-making skills. The third section compares nine commonly used paper-and-pencil instruments to measure interests, skills, and abilities. These instruments may assist both the student and the teacher/counselor in selecting areas of study which will meet the student's needs. By applying some of the programs and tests contained in the latter two sections, it is hoped that students will be better able to make career and occupational decisions.

Richard (1986) worked on faculty development for Teacher Educators. Reform in teacher education will require retraining teacher educators, just as reform in K-12 schooling requires retraining. Given the current age and prior experiences of teacher educators, faculty developers should recognize that they will be working with persons who have had substantial experience may not be tightly connected to research and dissemination networks. Faculty developers should also be aware that currently no one is assuming responsibility for comprehensive faculty development for teacher educators, nor are there ample, resources allocated for this task. TEN has shown how a network of organizations might create improvement- oriented faculty development. A network approach, with all its positive aspects, also has been shown to have pitfalls. It takes energy to keep networkers together, and it may be difficult to sustain cooperation over time. Networking may also have harmful effects by providing enough temporary attention to faculty development that longer-term efforts to gain commitments from higher educational institutions for faculty development may be

retarded. Finally, experiences in TEN have shown that faculty development can be guided by what is known about staff development in the public schools. Such features are designing development to the characteristics of adult learners, providing institutional leadership and resources, tying training to specific improvements, and providing quality training with follow-up and support. Application, however, has to reflect important differences between schools in K-12 settings and higher education. Prior neglect of faculty development for teacher educators and lack of research on this topic make all initiatives risky at the present time.

Williford (1993) conducted a study on perceived impact of State Rules and Regulations on Teacher Education Programs. The deans or department chairs of the 46 state-approved schools and departments of education in North Carolina were surveyed to determine the impact of the state-imposed regulations on their program development and implementation efforts. The respondents were asked if the state-imposed rules and regulations governing teacher education programs made it difficult for institutions to offer the kinds of programs they wished to provide, restricted creativity, caused difficulty in curriculum development, or caused other specific administrative problems. The regulations were those involving program approval standards, accreditation review processes, and certification requirements and procedures. Some major findings were: (1) the more rigorous screening of candidates for admission to teacher education has resulted in significant improvement in the academic quality of teacher education students; (2) the currently used outcome measures of program quality (70 percent passing rate on the NTE exit tests and the 95 percent success rate of graduates in the Initial Certification Program) are generally perceived to be positive; and (3) among the standards for state program approval, the SDPI competencies and guidelines for specialty areas and professional studies were considered to have had a positive impact. One conclusion reached was that many reported difficulties with the regulations are related to the perceived burdensomeness of the process rather than disagreement with the criteria. Appendixes provide copies of the cover letter and survey instrument mailed to respondents.

Ameta (1996) conducted a study on Teacher Morale Organizational Climate and Institutional Performance in Teachers' Colleges of Rajasthan. The objectives of this study were: (1) to study the teacher morale in the various Teachers Colleges of the state. (2) To identify the organizational climate of various Teachers Colleges in

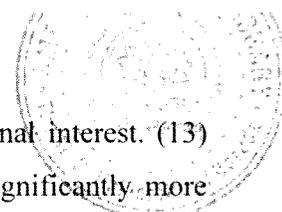
the state. (3) To find out the institutional performance of the Teachers Colleges in the state. (4) To study the relationship between the organizational climate, teacher morale and institutional performance. (5) To find out to what extent a relationship exists between Organizational climate and Teachers morale. There are 39 Teachers Colleges of different kind in the state. All the 39 Training Colleges (B. Ed) were selected as a sample. The wide range of colleges in the state was Deemed University, Government Colleges, Regional Colleges of Education and Private Unaided Colleges. Normative Survey method was used for the present study. The tools used were The OCDQ developed by Malpin and Craft; Teacher Morale Inventory (TMI) developed by Dekthawals MSU Baroda; and The institutional performance scale (IPS) developed by the investigator. Data were analyzed using percentage, t-test, and Spearman's product moment correlation, and ANOVA. The findings were: (1) Teachers working in general colleges seem to have a higher sense of work accomplishment and social satisfaction than those teacher educators working in women colleges. (2) Principals in General Colleges seem to be more concerned about giving a push, motivating and orienting the teacher educators than those in women colleges. (3) The higher level of feeling of spirit on the part of teacher educators in Teacher Colleges may be partly due to principles and consideration. (4) No significant difference is found when teacher morale of teacher educators of General Colleges and teacher educators of Women Colleges was compared at each of the three levels of morale in high, average and low. (5) Big sized colleges have higher level of performance than small sized colleges. (6) Teacher educators of 16 colleges have average teacher morale and teacher educators in 10 training colleges have low teacher morale. (7) The correlation of morale with disengagement, high spirit, high intimacy, high trust and high consideration contributed to high morale.

Nath (1997) worked on evaluating teacher attitudes in Professional Development Sites. As part of the evaluative process of a program at a professional development site (PDS), 30 participating elementary and middle school teachers were surveyed about their attitudes as participants in a field-based education program partnership. Each teacher was mentor to a pre-service teacher for a semester before student teaching, while 10 continued as cooperating teachers during student teaching. Using a Likert-like scale, 32 items sought information on: (1) practical knowledge passed from university instructors through pre-service university students to the classroom

teacher; (2) differences in instruction and management when more than one adult is in the classroom; (3) teachers' perceptions of students' awareness of teacher training; (4) reflectiveness in professionalism as a teacher educator; (5) difficulties in teaching required skills for state-mandated testing because of involvement as a PDS mentor; (7) the university's role at the collaboration site; and (8) enjoyment of having a PDS pre-service teacher. General findings indicate a positive attitude towards participating in a PDS partnership. Results also suggest that teachers were actively interested in integrating university ideas delivered through their PDS pre-service teachers.

Kaur (2001) conducted a comparative study of Job Satisfaction, Professional and Educational Interests, Creativity, Attitude towards teaching of Teacher Educators at different level of Teacher Education. The objectives of study were: (1) To study and compare the job satisfaction of teacher educators teaching at NTT, ETT and B.Ed. levels. (2) To study and compare the professional and educational interests of teacher educators teaching at NTT, ETT and B.Ed. levels. (3) To study and compare creativity of teacher educators teaching at NTT, ETT and B.Ed. levels. (4) To study and compare attitude towards teaching of teacher educators teaching at NTT, ETT and B.Ed. levels. (5) To compare the job satisfaction, professional and educational interests, creativity, attitude towards teaching of teacher educators of NTT, ETT and colleges of education on the basis of sex differences, age differences and institution-wise differences. The hypotheses of study were: (1) There are no significant differences in the job satisfaction of teacher educators teaching at NTT, ETT and B.Ed. levels. (2) There are no significant differences in the professional and educational interests of teacher educators teaching at NTT, ETT and B.Ed. levels. (3) There are no significant differences in the creativity of teacher educators teaching at NTT, ETT and B.Ed. levels. (4) There are no significant differences in the attitude towards teaching of teacher educators teaching at NTT, ETT and B.Ed. levels. (5) There are no significant differences separately in the job satisfaction, professional and educational interests, creativity and attitude towards teaching of male and female teacher educators teaching at NTT, ETT and B.Ed. levels. (6) There are no significant differences separately in the job satisfaction, professional and educational interests, creativity and attitude towards teaching of teacher educators teaching at NTT, ETT and B.Ed. levels on the basis of age. (7) There are no significant differences separately in the job satisfaction, professional and educational interests, creativity and

attitude towards teaching of teacher educators teaching at NTT, ETT and B.Ed. levels on the basis of institutions. The Descriptive Survey Method was used. The sample consisted of randomly selected 20 Teacher Educators of NTT, 90 Teacher Educators of ETT and 105 Teacher Educators of B.Ed. from Teacher Education Institutions of Punjab State. Job Satisfaction Scale by Singh and Sharma, Professional and Educational Interest by Sundaram, Verbal Test of Creativity Thinking by Baquer Mehdi, and Attitude towards Teaching Scale by Sundaram were used for data collection. The data were analyzed using Mean, SD, t-test, and percentages. The findings of study were: (1) Majority (95%) of NTT, 82% of ETT and 92% of B.Ed. teacher educators are either extremely satisfied or very satisfied by their job. But 4% of ETT and 3% of B.Ed. teacher educators are no satisfied. (2) 95% of NTT, 81% of ETT and 60% of B.Ed. teacher educators show poor professional and educational interests but 5% of NTT, 19% of ETT and 38% of B.Ed. teacher educators have shown average professional and educational interests. (3) 35% of NTT, 40% of ETT teacher educators are found to high creativity. But 45% of NTT, 50% of ETT and 42.85% of B.Ed. teacher educators show less creativity. (4) 95% of NTT, 81% of ETT and 75% of B.Ed. teacher educators have very favourable attitude toward teaching. (5) B.Ed. teacher educators are significantly more satisfied in their job as compared to ETT teacher educators. No significant differences are found in the job satisfaction of B.Ed. and NTT teacher educators and ETT and NTT teacher educators. (6) B.Ed. teacher educators are significantly highly creative as compared to ETT and NTT teacher educator. ETT teacher educators are creative than NTT teacher educators. (7) The study show significant differences in the professional and educational interests of B.Ed., ETT and NTT teacher educators. B.Ed. teacher educators have more professional and educational interests than ETT and NTT teacher educators. No significant differences are found between ETT and NTT teacher educators. (8) B.Ed. and ETT teacher educators, ETT and NTT teacher educators do not differ significantly in their attitude towards teaching. NTT teacher educators have more favourable attitude towards teaching than B.Ed. and ETT teacher educators. (9) Females have significantly more job satisfaction than male B.Ed. teacher educators. (10) Females teacher educators are significantly more creative than male teacher educators. (11) There is no significant difference separately in professional and educational interests and attitude towards teaching of male and female teacher educators. (12) Teacher educators at B.Ed., ETT and NTT levels do not differ



significantly in their job satisfaction and professional and educational interest. (13) Group II (36 – 49 years), B.Ed and NTT teacher educators are significantly more creative than their Group I ( $\leq 35$  years) and Group III ( $\geq 50$ ) teacher educators. Group I B.Ed. and NTT teacher educators are significantly more creative than Group III teacher educators and no significant differences are found for creativity between other groups. (14) Only Group I ( $\leq 35$  years) B.Ed. teacher educators possess significantly more favourable attitude towards teaching than Group II and Group III and no significant differences are found for attitude towards teaching between other groups. (15) B.Ed. teacher educators teaching in government and private institutions do not differ significantly in their job satisfaction, professional and educational interests and attitude towards teaching. (16) Private institutions teacher educators are significantly more creative than those teaching in government institutions.

Singh (2002) conducted a comparative study of Job Satisfaction of Teacher Educators in relation to their Values, Attitude towards Teaching and Teacher Effectiveness. The objectives of the study were: (1) to compare the relationship between job satisfaction and values among male and female teacher educators; values among male teacher educators; values among female teacher educators; values among male and female teacher educators for high, low and average level of satisfaction groups. (2) To compare the relationship between job satisfaction and attitude towards teaching among male and female teacher educators; attitude towards teaching among male teacher educators; attitude towards teaching among female teacher educators; attitude towards teaching among male and female teacher educators for high, low and average level of satisfaction group. (3) To compare the relationship between job satisfaction and teacher effectiveness among male and female teacher educators; teacher effectiveness among male teacher educators; among female teacher educators; teacher effectiveness among male and female teacher educators for high, low and average level of satisfaction groups. (4) To study and compare the joint effect of values, attitude towards teaching and teacher effectiveness towards the prediction of job satisfaction among male and female teacher educators; towards the prediction of job satisfaction among male teacher educators; towards the prediction of job satisfaction among female teacher educators. The hypotheses of the study were: (1a) There is a significant positive relationship between job satisfaction and values among male and female teacher educators. (1b) Significant difference does not exist in the relationship

of job satisfaction with values among male and female teacher educators at high, low and average level of satisfaction. (1c) There is a significant positive relationship between job satisfaction and values among male teacher educators. (1d) There is a significant positive relationship between job satisfaction and value among female teacher educators. (2a) There is a significant positive relationship between job satisfaction and attitude towards teaching among male and female teacher educators. (2b) Significant difference does not exist in the relationship of job satisfaction with attitude towards teaching among male and female teacher educators at high, low and average level of satisfaction. (2d) There is a significant positive relationship between job satisfaction and attitude towards teaching among male and female educators. (2d) There is a significant positive relationship between job satisfaction and attitude towards teaching among female teacher educators. (3a) There is a significant positive relationship between job satisfaction and teacher effectiveness among male and female teacher educators. (3b) Significant difference does not exist in relationship of job satisfaction and teacher effectiveness at high, low and average level of satisfaction. (3c) There is a significant positive relationship between job satisfaction and teacher effectiveness among male teacher educators. (3d) There is a significant positive relationship between job satisfaction and teacher effectiveness among female teacher educators. (4a) The prediction of job satisfaction among male and female teacher educators on the basis of joint effect of value, attitude towards teaching and teacher effectiveness is significantly higher as compared to their separate predictions. (4b) The prediction of job satisfaction among male teacher educators on the basis of joint effect of values, attitude towards teaching and teacher effectiveness is significantly higher as compared to their separate predictions. (4c) The prediction of job satisfaction among female teacher educators on the basis of joint effect of values, attitude towards teaching and teacher effectiveness is significantly higher as compared to their separate predictions. The sample comprised 250 teacher educators from the college of education affiliated to Punjab University, Chandigarh, Guru Nanak Dev University, Amritsar and Punjabi University Patiala selected using multistage sampling. The job satisfaction scale by Singh and Sharma, Personal Value Questionnaire by Sherry and Verma, Ahluwalia Teacher Attitude Inventory and Teacher Effectiveness Scale by P. Kumar and Mutha were used for data collection. The data were analyzed by mean, median, SD, Skewensss, Kurtosis, correlation, ANOVA and regression analysis techniques. The findings of the study were: (1) That

job satisfaction was negatively correlated with values A, C, D, E and J where as job satisfaction was positively correlated with values B, F, G, H and I. Values B, F, G, and H were significant negatively and value D was significant positively correlated with job satisfaction. (2) There was a positive correlation between job satisfaction and attitude towards teaching for male and female teacher educators but not significant. (3) The correlation between job satisfaction and attitude towards teaching separately for male and female teacher educators were positive but not significant. (4) Critical ratios between correlation coefficients of job satisfaction and attitude towards teaching among male and female teacher educators at high, average and low level of satisfaction were found significant. (5) Correlation between job satisfaction and teacher effectiveness for male and female teacher was positive and significant. It was also positive and significant separately for male and female teachers. (6) Critical ratio's between correlation coefficients of job satisfaction and teacher effectiveness for male and female teacher educators at high, average and low level of satisfaction were not significant. (7) The joint prediction for job satisfaction among male and female teacher educators was significantly higher as compared to their separate prediction. (8) The value, attitude towards teaching and teacher effectiveness jointly predicted job satisfaction significantly higher as compared to their separate prediction for male teacher educators. (9) The joint prediction of job satisfaction by values, attitude towards teaching and teacher effectiveness for female teacher educators was significantly more as compared to their separate predictions.

Kaur (2004) worked on a study of Teacher Effectiveness and Job-Satisfaction of Teacher Educators Teaching in Colleges of Education in Haryana. The objectives were: (1) To study the teacher effectiveness of teacher educators' teaching in college of education. (2) To study the job satisfaction of teacher educators teaching in colleges of education. (3) To study the relationship between teacher effectiveness and job-satisfaction of teacher educators teaching in colleges of education. (4) To study the difference in teacher effectiveness at different levels of job-satisfaction of teacher educators' teaching in college of education. (5) To study the classroom interaction patterns of effective, average and ineffective teacher educators teaching in college of education. The hypotheses stated were: (1) There exists a significant correlation among eleven dimensions of teacher effectiveness and four dimensions of job-satisfaction of the teacher educators. (2) There exists a significant difference in male

and female teacher educators on teacher effectiveness. (3) There exists a significant difference in high, middle and lower group of teacher educators on teacher effectiveness. (4) There exists a significant difference on high income and low income groups of teacher educators on teacher effectiveness. (5) There exists a significant difference on high experience and low experience groups of teacher educators on teacher effectiveness. (6) There exists a significant difference in government / aided and private college teacher educators on teacher effectiveness. (7) There exists a significant influence of interaction among job-satisfaction, sex of the teachers, income, experience, and types of institute of teacher educators on teacher effectiveness. (8) There exists a significant correlation between teacher effectiveness and job-satisfaction of teacher educators on teacher effectiveness. (9) There exists a significant difference between effective, average and ineffective teachers on teachers talk ratio (TTR). (10) There exists a significant difference between effective, average and ineffective teachers on student talk ratio (STR). (11) There exists a significant difference between effective, average and ineffective teachers on silence/confusion ratio (S/CR). (12) There exists a significant difference between effective, average and ineffective teachers on teacher response ratio (TRR89). (13) There exists a significant difference between effective, average and ineffective teachers on Teacher Question Ratio (TQR89). (14) There exists a significant difference between effective, average and ineffective teachers on People Initiation Ratio (PIR). (15) There exists a significant difference between effective, average and ineffective teachers on Instantaneous Teacher Response Ratio (ITTR). (16) There exists a significant difference between effective, average and ineffective teachers on Instantaneous Teacher Question Ratio (TQR89). (17) There exists a significant difference between effective average and ineffective teachers on Content Cross Ration (CCR). (18) There exists a significant difference between effective, average and ineffective teachers on Steady State Ration (SSR). The sample consisted of all the teacher-educators teaching in all the Colleges of Education affiliated to Kurukshetra University, Kurukshetra. There were seven colleges and in these there were 70 teacher educators .In this study survey method was followed. The tools were used: Teacher Effectiveness scale by Kumar and Mutha (1985), Job Satisfaction Scale by Kumar and Mutha (1976) and Flanders Interaction Category System (FICS) by Flanders (1970). Data collected for the present study were statistically analyzed with the help of: Mean, Median, Standard Deviation, Kutrosis and Skewness, Three Way ANOVA, Product Moment Correlation

and t-ratio. The major findings were: (1) There was significant correlation between teacher effectiveness and job satisfaction. (2) Teachers information source, advisor and guide, personality characteristics, relationship with pupils, fellow teachers, principals, parents and teaching skills were positively correlated. (3) Teachers professional knowledge and classroom management was positively correlated with information source. (4) Teachers disciplinarian function and teaching skills were positively correlated with motivator. (5) Teachers' teaching skills, co-curricular activities, personality characteristics and professional knowledge were positively correlated with disciplinarian function. (6) Teachers' relationship with pupils and fellow-teachers, principals and parents, classroom management, teaching skill, co-curricular activities, and personality characteristics were positively correlated with advisor and guide. (7) Teachers' co-curricular activities, classroom management, personality characteristics, teaching skills were positively correlated with relationship with pupils, fellow-teachers, principal and parents. (8) Teachers' co-curricular activities, professional knowledge, classroom management, personality characteristics were positively co-related with teaching skills. (9) Teachers professional knowledge, general appearance and habits in relation to classroom management, personality characteristics were positively correlated with co-curricular activities. (10) Teachers professional knowledge, general appearance and habits in classroom, management, and personality characteristics were positively correlated with each other. (11) Teachers' classroom, management and personality characteristics were positively correlated. (12) Teachers' personality characteristics, satisfaction with work, satisfaction with salary, security and promotion policies were positively correlated. (13) Teachers satisfaction with salary, security, promotion policies, satisfaction with institutional plans and policies, satisfaction with authority including management were positively correlated. (14) Teachers satisfaction with institutional plans, policies, and satisfaction with authority including management was positively correlated with satisfaction with salary, security and promotion policies. (15) Teachers' satisfaction with authority including management was positively correlated with satisfaction with institutional plans and policies. (16) There was no significant influence of interaction between sex and experience on Job-Satisfaction. (17) There was significant influence of interaction between sex and Type of College on Job-Satisfaction. (18) There was no significant influence of interaction between experience and Income on Job-Satisfaction. (19) The teacher effectiveness scores were normally distributed. (20) The

job-satisfaction scores were normally distributed. (21) The t-ratio for the difference in percentages of STR, S/CR, TQR, CCR was not significant. This means that the STR, S/CR, TQR, CCR in the classes of effective and average teachers was almost same. But for the ratios TTR, TRR, PIR, TRR89, and SSR were found significant. It means that the two groups of teachers differ from each other on TTR, TRR, PIR, TRR89, TQR89 and SSR. (22) The t-ratio STR was not significant but on the other hand S/CR and TRR was found to be significant at .05 level and the other ratios TTR, TQR, PIR, TRR89, TQR89, CCR, SSR were found to be significant at .01 level. This means that the two groups of average and ineffective teachers differ from each other. (23) The t-ratio TTR, STR were not significant. It means that the two groups of teachers were almost same at these ratios. (24) Similarly other ratios S/SC, TRR, TQR, PIR, TRR89, TQR89, CCR, SSR were found to be significant at .01 level. It means that the two groups of teachers differ from each other.

Judith (2005) worked on research-based teacher education for multicultural contexts. Graduate programs in education face the challenge of preparing teachers and specialists in education to work with English Language Learners (ELLs). Programs must be culturally responsive, while at the same time respecting state and federal standards for scientifically based practice according to best evidence. The focus of the present study is a graduate program in education that sought to prepare graduate students to address the needs of ELL students. Among the articulated goals of the program grant were that teachers enrolled would be able to: (1) use effective English for Speakers of Other Languages and bilingual educational strategies and methods; (2) use findings from testing, assessment and research functionally; and (3) promote multilingualism, and, in a broader sense, respect and equitable treatment of the heritages of home languages. The extent to which graduates of the master's program who were working as teachers and administrators at the time of the study were able to make culturally competent connections with ELL students and to establish a repertoire of scientific evidence, based on research findings that they could then use to support their teaching theory and practice, is discussed. Findings reflecting the responses of 57 graduates of the program were as follows: (a) the training provided by the master's program was rated as more useful than the in-service provided by the state because its emphasis on research allowed graduates to judge the merits of proposed educational reforms and to clarify their own pedagogy; (b) the ability to cite

research reports enabled graduates to be heard by colleagues and to depoliticize discussions regarding curricular reforms; (c) in developing their 'communities of practice', graduates made connections with others who had been trained in the use of scientific research in education. The study illustrates how a graduate education program focused on transformation and the encouragement of home language use can prepare teachers to work effectively in a political context of 'evidence-based practice'.

Kumar (2006) conducted a study of freezing among Teacher Educators in relation to their Job Satisfaction and Experience. The objectives of the study were: (1) to compare the freezing between teacher educators of Gorakhpur University and Meerut University. (2) To compare the freezing between high and low job satisfaction teacher educators of Gorakhpur University. (3) To compare the freezing between high and low job satisfied teacher educators of Meerut University. (4) To compare the freezing between high and low experienced teacher educators of Gorakhpur University. (5) To compare the freezing between high and low experienced teacher educators of Meerut University. (6) To compare the freezing between teacher educators working in aided and un-aided teacher training institutions of Gorakhpur University and Meerut University. (7) To compare the freezing between male and female teacher educators of Gorakhpur and Meerut University. The hypotheses of the study were: (1) There is no significant difference in the mean scores of freezingness between teacher educators of Gorakhpur and Meerut University. (2) There is no significant difference in the mean scores of freezingness between high and low experienced teacher educators of Gorakhpur and Meerut University. (3) There is no significant difference in the mean scores of freezingness between teacher educators of aided and un-aided institutions of Gorakhpur and Meerut University. (4) There is no significant difference in the mean scores of freezingness between high and low job satisfied teacher educators of Meerut University. (5) There is no significant difference in the mean scores of freezingness between high and low job satisfied teacher educators of Gorakhpur and Meerut University. (6) There is no significant difference in the mean scores of freezingness between low job satisfied teacher educators of Gorakhpur and Meerut University. (7) There is no significant difference in the mean scores of freezingness between high job satisfied teacher educators of Gorakhpur and Meerut University. (8) There is no significant difference in the mean scores of freezingness between high experienced

and low experienced teacher educators of Meerut University. (9) There is no significant difference in the mean scores of freezingness between high experienced and low experienced teacher educators of Gorakhpur University. (10) There is no significant difference in the mean scores of freezingness between high experienced teacher educators of Meerut University and Gorakhpur University. (11) There is no significant difference in the mean scores of freezingness between low experienced teacher educators of Meerut University and Gorakhpur University. (12) There is no significant difference in the mean scores of freezingness between teacher educators of aided and un-aided institutions of Meerut University. (13) There is no significant difference in the mean scores of freezingness between teacher educators of aided and un-aided institutions of Meerut University. (14) There is no significant difference in the mean scores of freezingness between teacher educators of aided institutions of Meerut and Gorakhpur University. (15) There is no significant difference in the mean scores of freezingness between teacher educators of un-aided and un-aided institutions of Gorakhpur University. (16) There is no significant difference in the mean scores of freezingness between male and female teacher educators of Gorakhpur University. (17) There is no significant difference in the mean scores of freezingness between male and female teacher educators of Meerut University. (19) There is no significant difference in the mean scores of freezingness between male teacher educators of Meerut and Gorakhpur University. (20) There is no significant difference in the mean scores of freezingness between female teacher educators of Meerut and Gorakhpur University. The study was descriptive type research. Sample consisted of 250 teacher educators. Out of 250 teacher educators, 150 were from Meerut University and remaining from Gorakhpur University. Sample was selected through stratified random sampling technique. Tools used were Teacher Educators Freezing Scale developed by N.P. Bhokta and Munesh Kumar and Teacher Educators Job Satisfaction Questionnaire developed by N.P. Bhokta and Munesh Kumar. Data were analyzed by using t-test. The findings of the study were: (1) No significant difference has been found in the level of freezingness between teacher educators of Meerut and Gorakhpur University. (2) Low job satisfied teacher educators were found significantly more freezed than the high job satisfied teacher educator of Meerut and Gorakhpur University. (3) No significant difference has been found in the level of freezingness between low and high experience teacher educators of Meerut and Gorakhpur University. (4) No significant difference has been found in the level of

freezingness between teacher educators of aided and unaided institutions of Meerut and Gorakhpur University. (5) Low job satisfied teacher educators were significantly more freezed than the high job satisfied teacher educators of Meerut University. (6) No significant difference has been found in the level of freezingness between high job satisfied teacher educators of Meerut University and Gorakhpur University. (7) No significant difference has been found in the level of freezingness between the low job satisfied teacher educators of Meerut and Gorakhpur University. (8) No significant difference has been found in the level of freezingness between high experienced teacher educators and low experienced teacher educators of Meerut University. (9) Low experienced teacher educators were more freezed than the high experienced teacher educators of Gorakhpur University. (10) Low job satisfied teacher educators were more freezed than high job satisfied teacher educators of Gorakhpur University. (11) No significant difference has been found in the level of freezingness between high experienced teacher educators of Meerut University and Gorakhpur University. (12) Low experienced teacher educators of Gorakhpur University were more freezed than the teacher educators of Meerut University. (13) No significant difference has been found in the level of freezingness between teacher educators of aided and unaided institutions of Meerut University. (14) Teacher educators of aided institutions were more freezed than the teacher educators of unaided institutions of Gorakhpur University. (15) Teacher educators belong to aided institution of Gorakhpur University were more freezed than the teacher educators of Meerut University. (16) No significant difference has been found in the level of freezingness between unaided institutions teacher educators of Meerut and Gorakhpur University. (17) No significant difference has been found in the level of freezingness between male and female teacher educators of Meerut and Gorakhpur University. (18) Female teacher educators of Meerut University were of more freezed than the male teacher educators of Meerut University. (19) No significant difference has been found in the level of freezingness between male and female teacher educators of Gorakhpur University. (20) Male teacher educators of Gorakhpur University were more freezed than the male teacher educators of Meerut University. (21) No significant difference has been found in the level of freezingness between female teachers educators of Meerut and Gorakhpur University.

### **2.3.6 Importance of Content Mastery to Educators**

Beck (1984) worked on perceived relative importance of content and process to Effective Teaching. A study was made of the attitudes of educators toward the relative importance of mastery of subject matter and mastery of teaching skills in teacher education programs. Three groups were sampled: 687 public school teachers, 448 public school principals, and 182 members of local boards of public schools. Responses to a mailed questionnaire revealed that 74.5 percent of the surveyed population perceived teaching processes to be of greater importance to effective teaching than was content expertise. An analysis is presented of these findings of opinions within each group, and comparisons are made among groups. The perceptions of the 23.9 percent of the respondents who perceived content to be of greater importance are also examined. Implications for teacher education programs are discussed and recommendations are made on maintaining an appropriate balance between necessary content mastery and process mastery. A copy of the questionnaire is appended, as well as a tabular breakdown of data results by groups and individual characteristics of the respondents.

Morton (1994) conducted a study on comparison of the Content Mastery Examination for Educators (CMEE) and the Praxis I Academic Skills Assessment for Initial Certification of Montana Educators. This comparative study was conducted in preparation for selecting a successor to the National Teachers Examination (NTE) for initial certification of Montana educators. The paper begins by discussing the background of using teacher competency tests in Montana, and examining demographic data on Montana students and certified teachers. Then, the Basic Skills and Pedagogy Tests of the Content Mastery Examination for Educator (CMEE), offered by National Computer Systems, and two versions of Praxis I Academic Skills Assessments and Pre-Professional Skills Tests (PPST) offered by the Educational Testing Service, are compared. The two sets of tests are examined in terms of five questions: (1) the knowledge, skills, and concepts the tests measure; (2) cost to new teachers; (3) whether these tests should be offered on computers and how would that impact costs; (4) what must be done to validate and implement the new test; and (5) why Montana is mandating a teacher competency test. A concern expressed is the need to include American Indians in the development and validation of the tests. The

findings of the comparison indicate that there is more reliance on tests that demonstrate utilization of knowledge, such as essays to assess writing, and less reliance on tests with discrete bits of knowledge. Only one company offers a multiple choice pedagogy test, but with the caveat that there is no assurance that the person who passes the test will be a good teacher. Based on the concept that a teacher's performance will have to be evaluated when he/she is actually teaching, the Praxis Series has added a performance test to assess teaching ability. Finally, since the ETS has removed all deadlines associated with phasing out any NTE tests, the results of the study suggest that Montana keep the NTE Core Battery in place while continuing to evaluate the Praxis Series.

### **2.3.7 Research Trends in Studies on Teacher Trainees**

Studies conducted in this area were - synthesis of research on teacher educator characteristics (Troyer, 1986); reasons given by students to enter teacher education programs and their selected characteristics (Marso, 1986); knowing expectations of students from teacher education to define teacher education (Rancifer, 1992); comparative study of teacher affective attributes to assess teacher quality uniformly (Marso, 1995); to know the academic, personal and family characteristics of persistent and non-persistent teacher candidates (Marso, 1996); preparing teachers to be multiculturally competent (Chang, 2006); to understand relationship between subject teachers' characteristics and students' marks in those relative subjects (Geeta, 2006); perceptions of pre-service and in-service teachers on the importance, relevance and application of research skills and knowledge to teaching (Ruth, 1995); to determine value of teacher education research to policy making (Barbara, 2002); developing a framework of variables to determine vitality of research to effective teaching (Protheroe, 2004); effects of instruction on self-assessed research knowledge, ability and interest (Stamov, 2006); effects of continuous engagement with research on teacher educators' professional practices and students' learning (Tanner, 2009); identifying promising approaches to update technology knowledge of teachers in order to provide their students with technological knowledge of current work field (Wonacott, 1983); teachers' views on technology in the contemporary society (Fleming, 1989); to provide standards for technology use for pre-service and in-service teachers and to meet needs of teacher educators (Peck, 2003); to develop new technology infusion program for tomorrow's teachers (Rowley, 2005); to prepare

future teachers to infuse technology in classrooms (Christensen, 2007); to evolve a critical theory of educational technology (Okan, 2007); developing a life skills curriculum for teacher educators to prepare student teachers to deal with children with disabilities in classrooms (Brolin, 1982); to decide on competencies needed by economics teachers and teacher educators for professional growth (Letitia, 1982); to study adjustment problems of professional and non-professional course students in relation to their self-concept and anxiety (Dalal, 1999); mobilizing adult educators' inner resources and social emotional aptitude to achieve good relationships with their co-workers and with children in their care (Seligson, 2001); identifying professional, academic identities that help persons becoming a teacher educator in new settings (Harrison, 2008); to understand evolution in development of teacher educators over three periods of their professional life (Merav, 2008); helping students to formulate goals and plans related to career and occupational decision making (Dunn, 1980); retraining of teacher educators for reforms in schools and higher education (Richard, 1986); impact of state imposed rules and regulations on teacher education performance (Williford, 1993); relationship between institutional performance with teacher morale and organizational climate (Ameta, 1996); studying attitudes of pre-service teachers about their participation in a field-based education program partnership (Nath, 1997); to study characteristics of teacher educators teaching at different levels (Kaur, 2001); comparing job satisfaction of teacher educators with values, attitudes towards teaching and teacher effectiveness (Singh, 2002); teacher effectiveness and job satisfaction of teacher educators in Haryana (Kaur, 2004); to develop research based teacher education programme to work with English language learners with different needs (Judith, 2005); job satisfaction, experience and freezing in teacher educators (Kumar, 2006); to study the attitudes of educators towards the relative importance of mastery of subject matter and matters of teaching skills in teacher education programs (Beck, 1984); to compare CMEE and Praxis I Academic Skills Assessment to select a successor to NTE (Morton, 1994).

Survey methods were employed mostly. Tools used were Teacher Educators Freezing Scale developed by N.P. Bhokta and Munesh Kumar and Teacher Educators Job Satisfaction Questionnaire developed by N.P. Bhokta and Munesh Kumar. Data were analyzed by using t-test.

## **2.4 Studies on Teacher Education**

Robert (1975) conducted a study on the nature of and alternatives for Teacher Competency Statements and implications for Assessment Techniques. Competency based teacher education has been defined in various ways, but there is general agreement on at least two basic elements. The first essential characteristic is the specification of teacher competencies which form the basis of the entire program. The second is the design of assessment techniques directly related to the specific competencies. Competencies have been written in a variety of ways and have been related to various domains or competency areas. In each of the competency domains the form of the competency must be examined to determine appropriate assessment techniques. There are a number of assessment factors which need to be considered in the evaluation of competencies. The nature of the standards, or criterion selection, is essential. Other concerns are comprehensiveness and fidelity of the assessment system, validity and reliability of data, and general utility of the process. Assessment of knowledge competencies can be accomplished through paper and pencil testing. Assessment of teaching behaviors or performances, however, requires observation of the individual demonstrating the skill. This may be accomplished by rating scales or structured observation systems. Utilizing sampling and student achievement have also been used, although it has been concluded that student learning measures cannot be fairly used to evaluate individual teachers at present. (An extensive list of references is included.)

Apple (1987) questioned 'Will the Social Context Allow a Tomorrow for "Tomorrow's Teachers?"'. When the problems to be solved are structural problems of society, it is argued, blaming teachers is simply shifting the focus. Also discussed are potential effects of the Holmes Group proposals on who enrolls in teacher education, who is hired by school systems, and what is the science of education.

Zewill (1992) conducted Educator Reserve Pool Study. The reserve pool is an important part of the educator supply pool in Oregon and in the nation. The Oregon reserve pool consists of those teachers, counselors, and administrators who hold active Oregon licenses but are not currently employed in an Oregon public school. To provide information on educator supply and demand needed to prepare for reforms called for in the Oregon Educational Act for the 21st Century (HB 3565), a 2-phase

study was conducted. In phase 1 a reserve pool population of 17,903 educators was identified. In phase 2, 1,186 of these educators were surveyed by mail. In general, the reserve pool respondents are experienced. The reserve pool appears to be a major source of substitute teachers. Nearly half of the respondents who are not currently working in education plan to look actively for full-time K-12 positions in the near future. Many in the reserve pool who are interested in obtaining school employment indicate a willingness to complete additional training in a specialty area if a school position were available. Training areas of greatest interest include mathematics, science, special education, reading, counseling, social studies, and language arts. For about half of the respondents, training programs are accessible.

Lerner (1993) analyzed the Pre-service Teacher Education Program as Described in Journals. This paper examines secondary pre-service student teachers' conceptions of teaching and reflections upon teaching experiences, as expressed in journals written by the student teachers. The paper presents excerpts from the journals of several student teachers. A study is then reported of a student teacher in social studies and his cooperating teacher, who each kept dialectical journals on the student teacher's actions and perceived experiences. The journal information was categorized into four domains: ability of self, classroom skills, subject content, and concern for students. A survey of student teachers and cooperating teachers was also conducted, with the result that cooperating teachers scored student teachers higher in teaching ability than did the student teachers themselves. The paper concludes that training in teacher education preparation programs can be demonstrated and better understood through the use of journals.

Mahajan (1993) worked on development of Teacher Attitude Scale for measuring Attitude towards Teaching Profession and its Application at B. Ed. Level. The objectives of the study were: (1) To select the appropriate technique of attitude scale construction. (2) To develop a tool for assessing the attitude of student teachers towards teaching profession. (3) To develop the appropriate tools for measuring the learning products of the student teachers after completion of various training activities during B.Ed. course. (4) To classify the student teachers in two extreme belonging to high and low attitude groups. (5) To evaluate the attitude scale as a selection tool for selecting student teachers for B. Ed. course. (6) To assess the attitudinal change in the student teachers of the selected colleges towards teaching profession by measuring at

beginning and at the end of B. Ed. training program. (7) To study the institutional differences in attitude development of student teachers. The study was ex-post facto research. Criterion group approach was used. Sample comprised of 180 student teachers of College of Education, Jalgaon. Investigator selected the Likert Technique for constructing the scale. In final draft, 30 statements were taken. The split-half reliability coefficient of the scale was 0.93. Test-retest reliability coefficient was found to be 0.63. The concurrent validity was 0.504. t-test was used for data analysis. The findings of the study were: (1) The significant difference was found in the attitude scores of the student teachers of College of Education, Jalgaon. (2) The significance difference was not found between the means scores of attitude towards teaching profession of male and female groups. (3) The significant difference was found in the performance indicators pertaining to workshop activity of B.Ed. course of the student teachers belonging to high and low attitude groups. (4) The significant difference was found in the performance indicators pertaining to micro-teaching activity of the student teachers belonging to high and low attitude groups. (5) The significant difference was found in the performance indicators pertaining to experiments in psychology of the B.Ed. course of the student teachers belonging to high and low attitude groups. (6) The significant difference was found in the performance pertaining to practice teaching, that is, school lesson activity of the B.Ed. course of the student teachers belonging to high and low attitude groups. (7) The significant difference was found in the indicators pertaining to social work of B.Ed. course of the student teachers belonging to high and low attitude groups. (8) The areas of socially useful productive work are the areas of the work situation in the field of production (i.e. candle making, chalk-making, ink-making etc.). The significant difference was not found. (9) The significant difference was found in the performance indicators pertaining to formation of study habits through activities related to theory part of the student teachers belonging to high and low attitude groups. (10) The significant difference was found in the preferential indicators pertaining to selection of the best student teacher by using socio metric technique for the students of B.Ed. course. (11) There is more percentage of participation of the high attitude group students in the activity of co-curricular and extra-curricular activities of the B.Ed. course than the students of low attitude group. (12) The significant institutional differences were not found in the increment of attitude scores due to study of B.Ed. course.

Anuradha (1995) conducted a study on appraisal of Teacher Training in APPEP. The objectives of the study were: (1) To ascertain the impact of In-service education of the teachers provided as a part of A.P. Primary Education Project. (2) To know the impact of APPEP's Teacher Centres based training on organization of teaching-learning experiences in the classroom. (3) To know the overall impact of APPEP on Pedagogical practices of teachers. Sample of 200 teachers of Hyderabad and Secunderabad who's undergone the in-service training of APPEP was drawn. For data collection, a self-prepared questionnaire focused on (1) the helpfulness of the course in applying the six pedagogical principles in the respondents' classroom, (2) motivation provide by the course to develop the respondents work as a teacher, (3) general organization of the course, (4) Resource Persons, (5) participation level of the respondents, (6) students' evaluation, (7) impact on pedagogical practices, (8) curriculum, (9) transfer of training based on six pedagogical principles, and (10) impact of teacher centres' based training was used for collecting data. The content analysis was used for analyzing the data. The findings of the study were: (1) The in-service course given by APPEP was helpful in applying the six pedagogical principles. (2) Majority of the respondents were motivated by the course to develop their work as a teacher. (3) The duration of the course was too long. (4) The course activities, like, group activities, practice teaching sessions with the pupils and discussion sessions after practice teaching were found to be very useful in preparing the respondents to apply the six pedagogical principles of APPEP in their teaching. (5) The respondents were satisfied only to some extent with the organization of the in-service courses of APPEP. (6) The resource persons of the course did not encourage discussions and that their delivery of goods was not adequate. However, it was revealed by the data that they were good in all other aspects, like, giving new material, preparation, innovative practices, etc. (7) Majority of the respondents were not able to participate fully in the course and make full contribution. (8) The majority of the respondents felt that the in-service training given by APPEP was not necessary. (9) The investigation has brought to light that all the primary teachers in the respondents' schools were not involved in the in-service programme of APPEP. (10) Majority of the respondents felt that the training provided by APPEP at various levels and workshops with different durations was duplicating. (11) Almost all of them felt that they should not be exposed to APPEP. (12) The course did not involve any

training in students' evaluation to indicate the ways of recording students' progress in the broader learning outcomes of APPEP. (13) The overall influence of APPEP was more on the non-government school teachers than the Government school teachers in respect of the way of teaching. (14) The classroom activities, classroom organization, time spent by children on learning tasks and evaluation was not influenced by the training. Other classroom activities of the respondents, like, feedback, teacher directed activity were influenced a lot by APPEP training. (15) More than half of the respondents felt that the changed approach to classroom teaching could be adopted even without APPEP. (16) The attendance in the schools improved a bit due to APPEP. (17) The achievement levels of the students who were currently taught by the respondents were more satisfactory in APPEP than in traditional methods of teaching. (18) The textbooks published by government were not based on the activity methods advocated by APPEP, and they were not useful in the present form. (19) With regard to transfer of training based on the six pedagogical principles it was found that there was maximum transfer in providing learning activities and promoting learning by doing. Only half of the respondents could create interesting classrooms. Majority of them were unable to recognize individual differences. Transfer of training did not take place in areas, like, monitor system, working together in groups, increasing students' interest and using the local environment. (20) The investigation revealed that though more than half of the respondents were attending the meetings at Teacher Centres, they were not much benefited by the activities taking place there. They felt that these activities did not help them in developing their teaching skills.

Rothenberg (1996) worked on 'As Ye Sow, So Shall Ye Reap: From Consultant to Collaborator in the Development of a Teacher Preparation Program in Lesotho'. This paper reports on the author's 4-week consultation with faculty of the Lesotho National Teachers College as part of the Primary Education Project which provided technical assistance with issues of primary age schooling in the Kingdom of Lesotho. The consultant worked with 12 faculty members of the National Teachers College in a process that evolved from a standard consultation to a rewarding collaboration. Emphasis was on developing participants own latent knowledge of teaching primary school-age children and to introduce newer principles about teaching literary and numeracy. Lesotho's previous pattern of primary education and the training of primary teachers was based on neo-colonial ideas of European educational structures. Teacher

preparation had focused on knowledge of subject matter rather than on pedagogy. Language and cultural differences initially caused difficulties for participants but the value of an active learning approach became apparent as the faculty began to integrate traditional rhyming songs, storytelling, and epic/historical poetry into teacher preparation curriculum development. Other issues covered during the project were multilevel planning using the environment in teaching, coping with extremely large classes, and the impact of historical customs. Appendices include lesson plans for storytelling and teaching numerical concepts through making traditional foods; and guidelines for conducting case studies on multi-structural teaching, mixed age group teaching, and the classroom without desks or benches.

Inuj (1997) conducted a survey on AACTE, *Teacher Education Policy in the States: A 50-State Survey of Legislative and Administrative Actions*. This publication updates information from prior surveys of the 50 states and the District of Columbia in the areas of: (1) standards (authorize measures of quality or competency that affect the teaching profession); (2) standards boards (any official state entity that may recommend or establish standards for program approval and for the issuance of licenses); (3) minority teacher recruitment (state-sponsored studies, proposals, legislation, or programs that address the problem of a decline in the number of minorities entering the teaching profession); (4) clinical/field experiences (student teaching or a similar activity); and (5) requirements for entry into and exit from teacher preparation programs. Regular and alternative preparation for licensure is described and options are organized into three categories: requirements for a regular license (those state standards that must be met to earn an initial or advanced teaching credential); emergency or shortage-driven credentials (the process by which a person who does not meet requirements for a regular license may be hired to fill a classroom vacancy when there is a shortage of qualified personnel); and non-shortage-driven alternative preparation for licensure

Damon, (1997) conducted a study on preparing teachers for tomorrow through Constructivist Approach. A 12-hour curriculum/methods block designed to lead elementary education teacher candidates through a constructivist, integrated model of teaching and learning is outlined. This block is part of a graduate level program that leads to licensure and a master's of Curriculum and Instruction in Curriculum and Instruction called Initial Teacher Education (ITE). The major concepts of the course

are: intelligence as a capacity to learn, diversity, constructivism, integration, holistic approach, inclusion, technology as a tool, collaboration, and reflection. Activities to build knowledge and understanding include developing a lesson plan based on research of a downtown urban community, and an extended classroom activity allowing for real life application of earth science, mathematics, social studies, expressive arts, and literacy. Activities to apply curriculum content include an extended classroom activity in which teacher candidates plan an integrated day based on the content of Colorado state history from 1850 to 1880 and planning a thematic unit using curriculum guides and standards, literature, and various technologies. Based on their understanding of how children learn and how differences among children impact learning, candidates develop curriculum, instruction, and assessment to meet the needs of all their students.

George (1999) conducted a study of innovations issues and problems of Teacher Education in Bihar in Recent Years. The objectives of the study were: (1) To evaluate the present method and procedure of admission in the teacher's training institutions in Bihar. (2) To determine whether the present curriculum of teacher education is relevant to the new roles and responsibilities of teachers or not. (3) To find out whether the various functional aspects of training are covered and the duration of the training is sufficient or not. (4) To find out whether the teachers training colleges in Bihar are practicing innovative methods for better learning and higher achievement or not and to evaluate the effectiveness of these innovations. (5) To find out the physical facilities available in training institutions and also their suitability for the program. (6) To throw light on the process of recruitment of teacher educators, their minimum qualifications and their relevance for the work they do. (7) To find out the level of interaction between the teacher education programs and community participation. (8) To ascertain the type and level of research training in training colleges. (9) To throw light on the political and community intervention in teacher-education in the state. (10) To find out the relationship between pre-service and in-service teacher education in the state. The study was descriptive type survey research. Sample comprised of 100 teacher educators of PTECS and DIETs, 200 teacher-trainees and 20 experts of DIET, training college, PG Departments of Education, SCERT, SIEMAT and BEP of Northern; Southern, Eastern, and Central Zone of Bihar. Stratified random sampling and multi stage random sampling techniques were used. A questionnaire related to

admission, curriculum infrastructure, qualification and orientation of teacher educators, innovations in teacher-education, issues in teacher education, problems in teacher educator community training relationship and research in teacher education and an interview schedule constructed by investigator were used for collecting the data. Percentage and central tendency were used for data analysis. The findings of the study were: (1) Direct admission should be discouraged. Entrance test, interview and marks of the last qualifying examinations should be the criteria for the admission to the teacher education programs. Certain percentage of seats should be reserved for candidates excelling in sports and music so that the students in school can benefit from such student trainees who will become teacher later. (2) Correct training in theory, skills, practice teaching etc. is quite essential which will result in bringing about a commitment towards the learner, the society and his profession. The curriculum is useful as per 73% of the population. However, it can be improved further to make it more useful and effective. (3) The curriculum is not sufficient. It must be associated with society; it should be gender sensitive to achieve the goal of universalization of education. The curriculum is vast for the year session. (4) SUPW and other activities are only 75.2%. 61% training institutes train their students in doing research projects; 59.6% training institute only encouraging micro-teaching; only 59.6% institute have their students undergoing actual and rigorous practice teaching while many of them have it on paper only; value education and value-orientation is absent in curriculum. (5) Only 54.4% institute have well equipped laboratory; 90.2% have a library, 805 of them only have sufficient number of books; 76.8% institutes have project room; 85.4% institutes show students interest to willing and volunteering to participation in seminars. (6) 84.4% of the data reveal that almost all subject teachers are available; teacher educators are recruited by the government in 27.8% cases; 51.8% teacher educators undergo in-service training or orientation program. The teacher educators are very professional, keen to update and enrich their knowledge and skill; in-service training is useful and very effective bringing out a qualitative change in the teacher educators. (7) 59.5% from the data show the use of the latest method of teaching. The art of interaction has to be taught and projected in student teachers to create a rapport with the pupils and simultaneously build the unit being taught; evaluation is continuous and comprehensive using a lot of new techniques and skills; 55% positive reply shows that more efforts are needed in conducting simulation exercises result in observation and feedback immediately;

observation of result is at 56% and feedback at 62.89%; skills are being improved partially at 68.1% in the training program; 59.6% population are aware of microteaching and its benefits; action research is not given much importance (35%). (8) Tackling of issues and awareness of them should be part of the training program. They include the following: (a) social issues, like, child rights and labor, children of underprivileged group, women empowerment, local verses global community, and children of special needs. (b) economic issues, like, liberal economy and education and economic development etc. (c) cultural issues, like, value crisis, secularism, modernity. (d) political issues, like, education as a fundamental right, fundamental duties, Panchyati Raj, community ownership. (e) curricular issues, like, skill development, TLM, community resource and evaluation examination etc. (9) Lack of proper building, rooms for each subjects, adequate library, well equipped laboratory, drinking water are the basic amenities, salary on time to staff, wrong process of admission, lack of practicing schools; the imbalance in the teacher-student ratio, non-availability of teachers in every subject; qualification of teacher educators; out dated curriculum, monotonous and routine methods of teaching; music room, growth of colleges of education, correspondence courses, detachment of community etc, are some the major problems of teacher education institutes.

Dinham (2002) conducted a study on 'Awards for Teaching Excellence: Intentions and Realities'. Two samples of recipients of teaching awards were surveyed in 2002. The first comprised educators from early childhood, primary, secondary, TAFE, and universities who had received inaugural New South Wales (Australia) Minister for Education and Training and Australian College of Educators Quality Teaching Awards in 2001. The second sample comprised educators from the United States who had received a variety of awards for exemplary teaching, ranging from local to national and from primary to university over several decades. Both samples were asked to respond to a series of open-ended questions exploring the personal and professional consequences of receiving a teaching award, views on the selection process and criteria employed, and how others had reacted to their award. Opinions of awards for teaching were also canvassed. The parallel studies revealed both intended and unintended outcomes arising from receipt of an award for exemplary or outstanding teaching practice. The e-mail survey and questions for teaching award recipients are appended.

Goel (2002) studied the effect of the Learning inputs provided in Teacher Education Programm on Teaching Efficiency of Teachers. The objectives were: (1) To study the learning input given during teacher education program. (2. To study the effect of learning input on learning perfection on following aspects: (a) Difference in sex, (b) Teaching experience and (c) Difference in subject. The hypotheses stated were: (1) The learning input given during teacher educational program are of different types. (2) There will be no difference in learning perfection on the basis of teachers' teaching experience. (3) There will be no difference in learning perfection on the basis of subject. (4) There will be no difference in learning perfection on the basis of difference in sex. The sample comprised of 70 teachers. These belonged to Rajasthan University, Jaipur, Maharshi Dayananda Saraswati Vishwavidyalaya, Jodhapur and Mohanlal Sukharia University, Udaipur and trained in the session 1999- 2001. The teachers' belief, view and conduct were questioned, observed and interviewed. The findings were: (1) During Teacher Education Program the learning input was of different types. (2) Teaching proficiency didn't differ due to difference in teaching subjects. (3) Teaching proficiency didn't differ due to differences in sex. (4) The preparation of teaching material differed amongst male and female teachers. (5) Teaching proficiency didn't differ due to difference in teaching experience.

Lara (2002) worked on 'Redesigning Teacher Preparation: A Collaborative Initiative for Quality Education'. Texas Southern University (TSU) is one of five institutions of higher learning involved in a collaborative partnership to redesign its teacher preparation program. Newly revised curriculum reflects best teaching practices supported by the use of technology. The Greater Houston Partnership is a 5-year project involving the five institutions, six urban school districts, and the Houston Annenberg Challenge. TSU redesigned its teacher preparation program by creating professional development hybrid courses online. The conceptual framework for the redesigned program is centered on pedagogy: teaching and learning with technology as an integral thread. This article outlines the overall process in redesigning the teacher preparation program and shares a student's perspective of the effectiveness of online courses. Beginning teachers who complete this redesigned teacher preparation program at TSU will experience: a broad repertoire of teaching styles, based on models of teaching, relative to specific contextual teaching-learning episodes; specific

expertise relative to their certification areas; skill in fostering teaching-learning with the expanded use of technology; ongoing assessments, evaluation, and program revisions; collaborative assessment techniques with diverse groups; involvement in action research; effective/affective collaboration with other colleagues for self-evaluation and curriculum design; and assessment of teacher preparation experiences to improve programs for EC-12 student learning.

Richaria (2002) conducted a critical study of Graduate level Teacher Training and Development & Problems of Education. The objectives of study were: (1) To study the numerical growth of graduate and post graduate colleges & Universities in U.P. from year 1950 – 1951 to year 1993 – 1994. (2) To investigate trends of teacher education development, organization and financial arrangements. (3) To provide suggestion for developments of teacher education. The hypotheses of study were: (1) There was no development to appropriate direction in the field of Teacher Education in U.P. after independence (2) Qualitative Position of Education is not satisfactory in U.P. The research was descriptive in nature. Randomly selected sample comprised of 40 Teachers, 20 Parents and 40 Students. Questionnaire developed by researcher was used for data collection. The data were analyzed by Mean, SD and F - ratio. The findings of study were: (1) In the year 1950 – 1951 there were 40 colleges in U.P. In 2001 – 01 the number increased to 758. In the year 1950 – 1951 there was no University in U.P. In 2001 – 01 the number increased to 18. (2) In the year 1950 – 1951 the budget of Teacher Education was 8% of the total budget of Education. In the year 1990 – 1991 the budget of Teacher Education was 9.95% of the total budget of Education.

Singh (2002) conducted a study on 'Magnitude of Conformity of Governmental and Non-Governmental Managed Teacher Education Institutions of Rajasthan State to the NCTE Norms - An Appraisal Study'. The objectives of the study were: (1) To study whether any organizational improvement has taken place ever since the administrative control of the NCTE over the teacher training colleges of Rajasthan. (2) To study whether the teacher training colleges have registered any financial ease in meeting out the ever increasing expenditure required for their smooth running and further development. (3) To study whether the control of the NCTE has succeed in stopping the malpractices prevailing in the teacher training colleges. (4) To study the

professional growth of the teachers training colleges in the state in such areas as library, laboratory, staff and other activities as a consequence to NCTE control on them. (5) To know the comparative position of teachers training colleges between pre and post NCTE control in terms of the extent of improvement (if any) in their working conditions and mitigating malpractices. The hypotheses of the study were: (1) There is no notable organizational improvement every since the administrative control of the NCTE over the teachers training colleges of Rajasthan. (2) Teachers' training colleges have not registered any financial improvement even after NCTE has extended aids to them. (3) Malpractices have further accelerated after the NCTE has taken control of teachers training colleges. (4) That professional growth of teacher educators has not been attained even after the NCTE has tightened the rope. (5) There is no difference in the academic environment of the teachers training colleges between the pre and post NCTE control over them. The Survey Method was used. The sample consisted of 260 teacher educators of 21 colleges from Rajasthan and 40 subject experts. Researcher for data collection developed Rating Scale and Interview Schedule. The data were analyzed by percentage, correlation, chi-square test. The findings of the study were: On the rating scale, the chi-square test was applied to determine the significant improvement occurred due to interference of the NCTE. (1) The calculated value of chi-square related to organizational setup of teachers' training institutions was found greater than theoretical value. It can be inferred that improvement in organizational setup of teachers training institutions is significant with the guidance of NCTE. (2) The calculated value of chi-square was found greater than theoretical value. Hence financial position of teachers training colleges has improved after interference of NCTE. (3) The calculated value of chi-square was found significant only on .05 level but not significant on the .01 level. There is just an improvement to stop commercialization of teacher education regularity of the session, sub standard malpractices but monopoly of management found was in teachers colleges. It is significant at .05 level. It means malpractices are not controlled effectively. (4) Professional growth of teacher educators and teachers training institutions has improved after control of NCTE. (5) Improvement in new techniques of B.Ed. curriculum, quality of research, correlation between theory and practice is not very effective. The gap of demand and supply has also been filled after control of NCTE. But an improvement in keeping of subject wise teaching staff in teachers colleges is significant.

Choudhary (2003) worked on 'Teacher Education: A Study of DIET's, CTE's and IASE's with Special Reference to NPE 1986: A Descriptive Study'. The objectives of study were: (1) To study the Structural and Functional aspects of IASE's and CTE's. (2) To study whether the objectives of NPE are realized though DIET's, CTE's and IASE's. (3) To find out the Quality concerns of the courses organized by IASE's and DIET's. (4) To find out whether the fund made available to these institutions is spent for which it is meant. (5) To study the status of these institutions in Andhra Pradesh in terms of grants receive, building, equipment, staff and programmes. (6) To study the participants' perceived training needs. (7) To compare the B.Ed. trainees and in – service teachers under various variables. The present study was Normative Survey in nature. Sample comprised of 500 teachers. Out of which, 300 were pre – service and 200 in – service teachers and head of secondary and primary schools. Investigator developed Questionnaire and Check Lists for data collection. The data were analyzed by computing Mean, Median, Skewness, Kurtosis and CR. The findings of study were: (1) All the DIET's, CTE's and IASE's have received grants for the construction of building and the purchase of equipment. But IASE, Kakateeya University has not purchased equipment. (2) The staff position of IASE's is the major problem and recruitments are made on ad-hoc basis. (3) The programmes conducted are not adequate, but average in the case of IASE, Osmania, Government IASE, Rajahmundry and IASE, Andhra University. Where as, the programmes are described to be below average in the case of S.V. University and Government IASE, Kurnool. IASE of Kakateeya University mentioned that 25 in – service programmes were planned but not organised. (4) All most all the DIET's have full – fledge staff on regular basis where as teaching staff of IASE's University are recruited on consolidated pay and their appointment being reviewed every year. (5) The CTE of Warangal has no hostel facility and building was not completed in CTE of Nagarjuna Sagar. Both CTEs, Warngal and Mehaboob Nagar appear to have better equipment than that of Nagarjuna Sagar. The staff position appears to be inadequate in all the three CTE's and IASE's The programmes organized by CTE's are considered to be average in the case of Warangal and Mehaboob Nagar and below average in the case of Nagarjuna Sagar. (6) Whatever may be the number of programmes, for most of the programmes most of the participants mentioned that the programmes are useful, need based and also satisfactory.

Allen (2003) conducted a study on 'Eight Questions on Teacher Preparation: What Does the Research Say? A Summary of the Findings'. This paper summarizes the findings of a 2003 report, on effective strategies for educating and training U.S. teachers. The full report details the findings and policy implications, offering summaries of all 92 research studies reviewed, discussing the use of research in policy decisions, and making recommendations for improving teacher preparation research specifically and education research in general. The report examined: (1) the extent to which subject knowledge contributes to teacher effectiveness; (2) the extent to which pedagogical coursework contributes to teacher effectiveness; (3) the extent to which high quality field experience prior to certification contributes to teacher effectiveness; (4) alternative route programs that graduate high percentages of effective new teachers with average or above average rates of teacher retention; (5) teacher preparation strategies that are likely to increase new teacher effectiveness in hard-to-staff and low-performing schools; (6) whether setting more stringent teacher preparation program entrance requirements, or conducting more selective screening program candidates, can ensure that prospective teachers will be more effective; (7) whether accreditation of teacher preparation programs contributes significantly to the likelihood that graduates will be effective and remain in the classroom; and (8) whether institutional warranties for new teachers contribute to the likelihood that recent graduates will be effective.

Mullick (2005) conducted a study on the Institutional Effectiveness of the College of Education in Relation to the Cost of Teacher Education. The objectives of study were: (1) To compare the following in case of student-teachers belonging to open and reserved category - (i) EPFTES of student-teachers, (ii) APFTES of students-teachers, (iii) DS of students-teachers, and (iv) ICOE of students-teachers. (2) To compare the following in case of students-teachers from private-aided and private-unaided colleges: (i) EPFTES of student-teachers, (ii) APFIES of students-teachers, (iii) DS of student-teachers, and (iv) ICOTE of students. (3) To compare the graduate and postgraduate student-teachers on the above four variables. (4) To compare the students of arts, science and commerce faculties on the four selected variables. (5) To ascertain relationship between EPFTES and the APFTES of the student-teachers. (6) To ascertain the relationship of prior achievements scores (PAS) of student-teachers with (i) EPFTES of student-teachers, (ii) APFTES of student-teachers, (iii) DS of

student-teachers, and (iv) ICOTE of student-teachers with. (7) To ascertain relation of the individual cost of teacher education (ICOTE) incurred by student-teachers with (i) EPFTES, (ii) APFTES, and (iii) DS of student-teachers. The hypotheses of the study were: (1) There is no significant difference in the expected performance of functions of teacher education (EPFTES) between student-teachers belonging to open and reserved categories. (2) There is no significant difference in performance of functions of teacher education (APFTES) between student-teachers belonging to open and reserved categories. (3) There is no significant difference in discrepancy scores (DS) of student-teachers belonging to open and reserved categories. (4) There is no significant difference in the individual cost of teacher education (ICOTE) between the student-teachers belonging to open and reserved categories. (5) There is no significant difference in the expected performance of function of teacher education (EPFTES) between the student-teachers of private-aided and private unaided colleges. (6) There is no significant difference in the APFTES between student-teachers belonging to open and reserved categories. (7) There is no significant difference in the discrepancy scores (DS) between student-teachers belonging to open and reserved categories. (8) There is no significant difference in the ICOTE of student teachers between student-teachers belonging to open and reserved categories. (9) There is no significant difference in the EPFTES between student-teachers with different qualification levels. (10) There is no significant difference in the APFTES between student-teachers with different qualification levels. (11) There is no significant difference in the ICOTE between student-teachers with different qualification levels. (12) There is no significant difference in the DS between student-teachers with different qualification levels. (13) There is no significant difference in the EPFTES amongst student-teachers from different faculties. (14) There is no significant difference in the APFTES amongst student-teachers from different faculties. (15) There is no significant difference in the DS amongst student-teachers from different faculties. (16) There is no significant difference in the ICOTE amongst student-teachers from different faculties. (17) There is no significant relationship between EPFTES and perception of APFTES of student-teachers. (18) There is no significant relationship between prior achievement of the student-teachers (PAS) and their EPFTES. (19) There is no significant relationship between prior achievements of student-teachers (PAS) and their APFTES. (20) There is no significant relationship between prior achievements of the student-teachers (PAS) and discrepancy scores (DS) between the

EPFTES and APFTES. (21) There is no significant relationship between the prior achievements (PAS) of the student-teachers and the individual cost of teachers' education (ICOTE). (22) There is no significant relationship between the EPFTES and ICOTE. (23) There is no significant relationship between APFTES and ICOTE. (24) There is no significant relationship between the expected and actual function of teacher education and the cost of teachers' education (ICOTE). The study was quantitative descriptive type. The correlation method and casual-comparative method were used. The sample consisted of 343 B.Ed. students of Greater Mumbai Colleges affiliated to the University of Mumbai with English as the medium of instruction. Stratified Random Technique was used for selecting the student-teachers and colleges separately. A rating scale to measure Institutional Effectiveness by Pandya, an Inventory to measure Traditional Cost incurred by students by Wakpainjan and a Personal data sheet made by researcher were used as tool. The correlation, ANOVA, t-test and W2 estimate were used for data analysis. The findings of study were: (1) There is no significant difference in EPFTES between student-teachers belonging to the open or reserved category. (2) There is no significant difference in the perception of APFTES between student-teachers belonging to the open or reserved category. (3) There is no significant difference in the perception of DS between student-teachers belonging to the open or reserved category. (4) There is a significant difference in the ICOTE of student-teachers belonging to the open and reserved category. (5) There is a significant difference in the EPFETS of student-teachers of private aided and private unaided colleges. The EPFETS of student-teachers of private unaided colleges is higher. (6) There is no significant difference in EPFTES of student-teachers of private aided and private unaided colleges. (7) There is no significant difference in DS of student-teachers of private aided and private unaided colleges. (8) There is a significant difference in the ICOTE of student-teachers of private aided and private unaided colleges. The cost of education in private aided colleges is lower than that of unaided colleges. (9) There is no significant difference in the EPFTES of student-teachers with different levels of qualification. (10) There is no significant difference in the APFTES of student-teachers with different levels of qualification. (11) There is no significant difference in the DS of student-teachers with different levels of qualification. (12) There is no significant difference in the ICOTE of student-teachers with different levels of qualification. (13) There is a significant difference in the EPFTES of student-teachers educated in different faculties. The student-teachers from

arts faculty have the highest EPFTES followed by student-teachers of science and commerce faculties in that order. (14) There is a significant difference in the APFTES of student-teachers educated in different faculties. The student-teachers from arts faculty have highest APFTES followed by student-teachers of science and commerce faculties in that order. (15) There is a significant difference in the DS of student-teachers educated in different faculties. The students from commerce faculty have highest DS followed by student-teachers of science and arts in that order. (16) There is a significant difference in ICOTE of student-teachers educated in different faculties. The student teachers from arts faculty have highest ICOTE followed by student-teachers of commerce and science faculties in that order. (17) There is a high positive correlation between the EPFTES and the APFTES, while there is no significant correlation between PAS and EPFTES, and PAS and APFTES, and PAS and DS of the student-teachers. (18) There is no significant relationship between the PAS and the ICOTE, the EPFTES and the ICOTE, APFTES and the ICOTE and the DS and ICOTE of the student-teachers.

Ahern (2007) worked on establishing design specification for a master's program to develop accomplished teaching. The quality of teaching students receive is the most significant variable for student learning (National Commission for Teaching and America's Future, 1996). Students of accomplished teachers outperform their peers when other factors such as socioeconomic status, race and ethnicity are kept constant (Darling-Hammond, 2000; Wayne, 2002). Further, studies suggest that such positive effects are cumulative and can lead to substantial disparity in student achievement levels over time (Marzano, 2001; 2003; Wenglinsky, 2002). Despite the potential benefits of such accomplished teaching, there lacks a strong consensus on what comprises this practice and there are limited means for certified teachers to develop this expertise at the graduate level (Bransford, Brown, and Cocking, 2000; Johnson, 2004). While graduate programs for teachers do exist and many teachers participate in such programs, they do not consistently provide either the requisite content or delivery mechanisms to develop expertise. Two questions guided the work of this study: What are the qualities of accomplished teaching and how can teachers develop these competencies? The answers to these questions will inform the design specifications for a master's programs for certified teachers that will promote the growth of accomplished teaching. To answer these questions, the researches used a

mixed-method approach combining qualitative analysis of data from various teaching standards a locus group protocol, expert review, and exemplary programs comparison as well as a quantitative analysis of practitioner surveys. The entire study was grounded and guided by an extensive review and analysis of the literature. The study ascertained that there are identifiable characteristics of accomplished teaching. This accomplished practice includes knowing and having high expectations for students and their learning, using multiple means and strategies to produce successful student learning, continuously, both individually and collaboratively, examining and reflecting upon practice to develop abilities, and embracing multiple roles for the teacher. The study also established the means through which teachers can learn and develop these abilities. These include collaborating with peers, examining and reflecting on teaching and learning, engaging in contextualized inquiry and engaging in continuous and ongoing learning.

#### **2.4.1 Research Trends in Studies on Teacher Education**

Studies on teacher education area were concentrating on developing a competency based teacher education program (Robert, 1975); flexibility of social contexts on teachers to aim for solving contextual problems (Apple, 1987); describing an existing pool of educators (Zewill, 1992); using journals to describe education (Lerner, 1993); to develop a teacher attitude scale and its application at B. Ed. level (Mahajan, 1993); appraisal of teacher training in Andhra Pradesh Primary Education Project (Anuradha, 1995); evolving of professionals in working environment in a teacher education program (Rothenberg, 1996); survey of legislative and administrative actions related to a quality and standards to be maintained in teacher education (Inuj, 1997); constructivism based course material development to develop teachers for tomorrow (Damon, 1997); study on innovations, issues and problems in teacher education in Bihar (George, 1999); to study the outcomes of rewarding excellence from award winning teachers (Dinham, 2002); effect of learning inputs of teacher education programs on teaching effectiveness (Goel, 2002); a collaborative partnership to redesign teacher preparation program, (Lara, 2002); development and problems of graduate level teacher training (Richaria, 2002); conformity of teacher education institutions to NCTE norms (Singh, 2002); study of teacher education institutions of different levels with special reference to NPE, 1986 (Choudhary, 2003); effective strategies for educating and training US teachers (Allen, 2003); relationship between

cost of education and the institutional effectiveness of college of education (Mullick, 2005); designing a specific master's program to develop accomplished teaching (Ahern, 2007);

Survey method was employed for most of the studies. Investigator prepared tools like questionnaires rating scales, personal data sheet, checklist etc. used. Some specified tools include, a rating scale to measure Institutional Effectiveness by Pandya, an Inventory to measure Traditional Cost incurred by students by Wakpainjan, teacher effectiveness scale by kumar, and Mutha (1985), Job satisfaction Scale by Kumar and Mutha (1976), FICS by Flanders (1970), OCQD developed by Malpin and Craft; Teacher Morale Inventory (TMI) by Dekthawals MSU Baroda; the institutional performance Scale developed by Ameta, self-concept scale developed by Dutt & Chadda; Adjustment Inventory for College Students developed by Dr. A.K. P. Sinha and Dr. R.P. Singh; Anxiety Scale – SCAT (Sinha's Comprehensive Anxiety Test) Constructed and Standardized by Dr. A.K.P. Sinha and Dr. L.N.K. Sinha, job satisfaction scale by Singh and Sharma, Professional and Educational Interest by Sundaram, Verbal Test of Creativity Thinking by Baquer Mehdi, and Attitude towards Teaching Scale by Sundaram, Personal Value Questionnaire by Sherry and Verma, Ahluwalia Teacher Attitude Inventory and Teacher Effectiveness Scale by P. Kumar and Mutha.

The correlation, ANOVA, t-test and W2 estimate, mean, median, kurtosis, CR, percentage, skewness, central tendency, regression analysis, standard deviation, t-test, Spearman's product moment correlation, three way NOVA were used for data analysis.

## **2.5 Implications of the Review of Related Literature for the Present Study**

Studies mostly concentrated on predicting the success of the candidate in the overall programme or a part of programme. Most of the studies used standard admission test scores and examination scores of candidates to decide on the predictivity. Qualitative factors like aptitude, attitude, human values etc were also considered. Activities like role play, microteaching etc. were also considered to understand the predictivity. Attempts were also there to develop standardized tests for admission by conducting predictive validity tests on specific selected variables. Studies also concentrated on

finding out the effectiveness of admission procedures, psychological and social factors influence on academic and vocational success, influence of race and counseling services on performance and adjustment of candidates to specific situations. However, the present study attempted to test the quality of candidate basing on self-constructed tests and comparing the scores to their overall scores in the teacher training programme. Here the emphasis was to understand the potential combination of factors that could identify the quality of candidate to the optimum level.

Studies on admission processes tested the effectiveness of different variables in relation to quantitative and qualitative characters. Even psychological status and social status relation to selection of candidates was studied. Technology effect on induction process, and retention of candidates in programme through channelizing admission process was also focused. Policy making practices were also tried to be improved through redesigning admission standards, effect of demographics on selection was also focused. However, the present study is focusing on testing the effectiveness of a group of factors on quality of candidate in order to suggest formulation of proper admission procedures.

Studies on teacher education areas were concentrated on developing appropriate programmes relevant to contextual needs and employment needs. Studies were also attempted to study the characteristics of candidates in order to improve them further. Studies on management of teacher education focused on new trends like collaborative partnership, conformity to norms, problems of students. Effectiveness of research programs, financial aspects, and comparison of teacher programmes was also attempted. Development of relevant materials, improving the process occupied part of study. However the present study attempted to touch admission process of teacher educator training program, that too suggesting including tests on certain selected factors in order to improve the efficiency of the programme.

Studies focused on reasons for students entering into teacher education programmes, understanding the characteristics of teacher educators, relationship between teacher effectiveness and students' achievement. Importance of research on teaching, policy making, and process of teaching were focused in studies. Integration of technology into teacher education programmes through developing awareness, attitudes and

interests in teacher formed another important area of studies. Developing life-skills programme for teacher educators to deal with students with disabilities, to understand the adjustment patterns of teachers to different settings, evolution of professional characters over a period of time occupied some important areas of studies. Job satisfaction, conformity to rules and regulations, impact of state rules and regulations on quality of the programmes, dealing with disabled students in classroom situations occupied another aspect of studies on teacher educators. Overall the studies focus was on improving the situations according to the contextual needs. The present study attempted to study the innate and natural feelings of students towards these situations. This attempt was to plan admission and process procedures later in a planned way.