CHAPTER - II

REVIEW OF RELATED LITERATURE

2.1 Introduction

The review of related literature enables the researcher to understand the recent trends in the particular field of research. Hence the researcher made an attempt to review the related literature and the findings are summarized in this chapter.

2.2 Review of Related Literature

2.2.1 Studies done in Emotional Intelligence

2.2.1.1 Indian Studies

Amirtha (2004) conducted a study on the personality of teachers in relation to their emotional intelligence using Bar-On's Emotional Quotient Inventory and found that there was no significant gender difference in overall emotional intelligence, although women teachers had better impulse control and problems solving skills than men teachers. Age also did not influence the emotional intelligence of teachers, but elder teachers were found to have more empathy than the youngsters. In general, educational qualifications did not have a say over the overall emotional intelligence of teachers, albeit significant difference in problem solving, emotional self-awareness and stress tolerance skills where post graduate teachers were better than graduate teachers. No significant difference was found
between arts and science teachers in their study. Experience and type of school did not influence the emotional intelligence of teachers. An important finding of the study was that the personality of teachers had significant impact on their emotional intelligence.

Annaraja and Jose (2005) in their study on the emotional intelligence of 300 B.Ed teacher trainees in Kerala State, observed that eighteen per cent of the trainees have low level, 66% of them moderate level and 16% of them high level of emotional intelligence. No significant difference existed between rural and urban trainees in their self awareness, self-control, social skills and emotional intelligence except in two dimensions namely motivation and sympathy where the difference was found to be significant. Trainees with different optionals of study such as English, Physical Science, Social Science, Natural Science and Mathematics showed significant difference in their emotional intelligence in general but such difference did not exist in selected two dimensions namely self-awareness and self-control.

The study of Suresh and Rajalakshmi (2005) on the emotional intelligence of school teachers revealed no significant gender difference and also no rural urban divide. But teachers from government schools had significantly higher emotional intelligence than those of private schools. Similarly language teachers exhibited higher performance in their emotional intelligence score than other subject teachers.

Alavandar (2006) investigated the emotional intelligence of elementary school teachers working in Cuddalore District of Tamilnadu. He conducted the study on a sample of 300 teachers working in primary, middle, high and higher
secondary schools using Proportional Stratified Random Sampling techniques. Its findings were: the emotional intelligence of elementary school teachers was rather high; Men and women teachers did not differ significantly in their emotional intelligence; Age had a significant bearing in their emotional competence. Emotional intelligence increased with age until the fifth decade of their life.; Educational qualification, teaching experience, level of school and type of management did not significantly differentiate teachers in their emotional intelligence.

Bhuvaneswari (2006) studied the Emotional intelligence of college students of different disciplines with the objectives of finding out the emotional intelligence of final year college students with respect to their gender, age, birth order, caste and type of management. Survey method was adopted. A sample of 450 students was selected from four colleges in Tamil Nadu and one college from Kerala. The emotional intelligence scale constructed by the investigator was used for this study. This study revealed that there was no difference between the male and female students in their emotional intelligence, of them below 21 age group students had high emotional intelligent than the above 21 age group students and the aided college students had high emotional intelligent than the students of government and self financing college students.

Upadhyaya (2006) examined the difference in the personality traits of high and low emotionality intelligent students-teachers. A sample of 78 students-teachers studying in Ewing Christian College, Allahabad was selected for study. The test of emotional intelligence and personality inventory) were used for collecting data and
these tools were developed by K.S. Misra. The statistical methods used in the study for analysis of data were mean, S.D. and ‘t’ test. Student-teachers with low emotional intelligence were more uneasy and worried about future unhappy feeling and failures: were less cautious, irregular and like to take more rest, restrain others, had lack of energy and feel tired and uninterested and conform to the opinion or accepted path taken by most people. Student-teachers with high emotional intelligence were more competent and had more self confidence, hard working, help others constructive way, more motivated, energetic and full of enthusiasm and turn away from accepted given path or opinion.

Biju (2007) explored the Emotional intelligence and Teaching Competency of teacher trainees of secondary education Survey method was followed. The sample for the present study selected by random sampling technique, covering nine Colleges of Education, three from each district. Emotional Intelligence Inventory of Anukool Kyde, Sanjyot Pethe and Upinder Dhar and General Teaching Competency Inventory of Dr. B.K. Passi and M.S. Lalitha were used. t-test analysis of variance and chi-square test were employed. There was no significant difference between male and female teacher trainees at secondary level in their emotional intelligence. There was no significant difference among 20-22 years, 23-25 years and above 25 age group of B.Ed, students in their Emotional Intelligence. Men's, women's and co-education college B.Ed., students had no significant difference in their Emotional Intelligence. Aided college B.Ed., students had higher level of emotional intelligence. Arts and Science B.Ed., students had no significant difference in their Emotional Intelligence. There was no significant difference among 20-22 years.
23-25 years and above 25 age group of B.Ed., students in their Teaching competency.

Poongodi (2007) examined the relationship between Emotional Intelligence and Goal Orientation among the P.G. Teachers of Cuddalore District. The Emotional Quotient Inventory developed by Reuven Bar-On and translated by Dr.R.Alavandar (2006) was used as tool to measure Emotional Intelligence of the teachers. The sample for the study was 161. The findings were: DTEd Trainees of Pudukkottai and Thanjavur Districts had high level of Emotional Intelligence. Female trainees had high level of Emotional Intelligence when compared with the male trainees of Pudukkottai and Thanjavur Districts. Trainees did not differ in their emotional intelligence with respect to the variables Age of the trainees, Type of Management and Type of Administration of the Teacher Education Institutions.

Singaravelu (2007) examined the level of emotional intelligence of student teachers (pre-service) at primary Level in Puducherry. Emotional intelligence of student teachers in Puducherry region was above average as the mean and standard deviation were found to be 33.46 and 9.46, respectively. It was observed that 68% of the student teachers had above average level of emotional intelligence. No significant difference was observed in emotional intelligence between men and women student teachers.

Babu (2008) investigated the relationship between self-esteem and emotional intelligence among B.Ed trainees of Tsunami affected coastal belt of Alappay
District of Kerala, India. Stream of study, marital status and age based comparisons were made among the B.Ed trainees. 92 B.Ed trainees were the participants in the study. It was found that they had a good level of self-esteem and emotional intelligence. While the variables were correlated, it was found a substantial correlation in all the groups except science stream students. The correlation coefficient between self-esteem and emotional intelligence of science stream students was high. Both in self-esteem and emotional intelligence, it was found no significant difference among the students based on stream of study, marital status and age, except in the comparison of them in their self-esteem based on age.

Suresh (2008) studied the emotional intelligence as a correlate of stress of student teachers. The objective was to study level and correlation of emotional intelligence, stress of student teachers with respect to sex, institution types and subjects. Normative survey method was used to collect the data. The tools emotional intelligence inventory, stress inventory constructed by the investigator was used to collect the data. The sample included 602 from various training colleges from Kerala. Mean, Standard Deviation, Co-efficient of Correlation were worked out for the analysis. There was no significant difference between male and female student teachers in their emotional intelligence. But the females had higher stress than males. The type of management did not a matter in their emotional intelligence. There was a negative correlation between emotional intelligence (–0.25) and stress of the teacher trainees.

Donaamalorpavam (2010) conducted a study of Emotional Intelligence among the DTEd Trainees of Pudukkottai and Thanjavur Districts in relation to
their Self Efficacy. The Emotional Quotient Inventory developed by Reuven Bar-On (2004) and translated in Tamil by Dr. R. Alavandar (2006) was used as tool to measure Emotional Intelligence of the DTEd Trainees teachers for the present research. The tool was administered to 304 DTEd teacher trainees selected randomly from the Elementary Teacher Educational Institutions of Pudukkottai and Thanjavur Districts. The DTEd Trainees of Pudukkottai and Thanjavur Districts have high level of Emotional Intelligence. Trainees do not differ in their emotional intelligence with respect to the variables Age of the trainees, Type of Management and Type of Administration of the Teacher Education Institutions. The DTEd Trainees of Pudukkottai and Thanjavur Districts had a positive correlation between the Emotional Intelligence and Teacher Self Efficacy.

Dubey (2011) studied emotional intelligence among undergraduate students in relation to gender and social category. The sample for the study comprised of 180 Arts stream undergraduate students of University of Allahabad. Findings of the study revealed that, females were more emotionally intelligent than male students; students of general category had high emotional intelligence in comparison to their counterparts belonging to Other Backward Community (OBC) and Schedule Caste (SC) category. The same was true of male students but female students belonging to general, OBC and SC category do not differ from one another on emotional intelligence.
Goswami (2011) made an attempt to understand the emotional level of the postgraduate students of Gauhati University in relation to gender, Area and stream and also to find out whether there is any significant difference between male and female, rural and urban and arts and science students in their level of emotional intelligence. The study was conducted on a sample of 220 postgraduate students of Gauhati University selected by stratified random sampling. Data collected through the standardized emotional intelligence test were analysed with appropriate statistical techniques. It was found that the postgraduate students of Gauhati University had an average level of emotional intelligence. There was no significant difference between male and female students and arts and science students in their emotional intelligence.; however, significant difference was found in the emotional intelligence of rural and urban students.

2.2.1.2 Foreign Studies

Madonna and Kathy (2001) conducted a study on Emotional Intelligence and Empathy: their relation to multicultural counseling, knowledge and awareness. Their results revealed no statistically significantly sex differences. School counselors' multicultural education, emotional intelligence scores, and personal distress empathy scores accounted for significant variance in their self - perceived multicultural counseling knowledge. However, prior multicultural education, emotional intelligence, and empathy were not significantly predictive of school counselors' self - reported multicultural counseling awareness.
Marc, Mayer and Rebecca (2004) studied the emotional intelligence and its relation to everyday behaviour. Women scored significantly higher in emotional intelligence than men. Emotional intelligence, however, was more predictive of the life space criteria for men than of women. Low emotional intelligence was significantly associated with maladjustment and negative behaviours for college-aged males, but not for females.

Pery, Balls, and Stacey (2004) developed a new measure for assessing emotional intelligence of teachers in teaching situation and reported gender differences where female teachers reported greater likelihood of demonstrating emotional intelligence compared to male teachers. There was partial support for the four-branch model of emotional intelligence in their findings.

Harrod and Scheer (2005) explored adolescent’s emotional intelligence in relation to demographic characteristics. Emotional intelligence (EI) was measured in 200 youth aged 16-19. EI scores were compared to demographic characteristics of the individuals (age, sex, household income, parents' level of education, and location of residence). The EI levels were positively related to females, parents’ education, and household income. The study did not show significant relationships between adolescent EI and location of residence or age. EI scores were significantly different between females and males, with females reporting higher EI levels. A one-way ANOVA showed no significant differences between EI scores and age, location of residence, and household income. Significant differences were found based upon EI scores for parents’ education; as they increased, so did EI levels. In a
linear regression model, with demographics as the independent variables and EI as the dependent variable, father's education and sex were both predictors.

This study focused the relationship between Emotional Intelligence (EI) and Impulsive Buying Tendency (IBT). A survey of 574 adolescents found that high-EI adolescents manifested less impulsive behavior than did low-EI adolescents, and high-IBT adolescents were more likely to engage in more impulsive buying behavior than were low-IBT adolescents (Lin and Chuang, 2005).

Ozabaci (2005) made an evaluation on the relationships between levels of social skills and emotional intelligence of students attending a master's program without thesis as candidate teachers. To this aim, the author asked the following questions: First, was there a relationship between the social skill levels and emotional intelligence levels of students attending a teacher training program as candidate teachers? Second, was there a relationship between the social skill levels and emotional intelligence levels of students attending a teacher training program as candidate teachers with regard to gender? With regard to the results, there was a high relationship between the levels of understanding of one's own emotions and the understanding of others' emotions, and the sub-dimensions of social narrating and emotional sensitivity of candidate teachers. The fact that emotional intelligence levels of candidate teachers were high in the sub-dimensions of awareness of one's own emotions and understanding others' emotions might be interpreted as the reflection of the same process in social relations.

The relationships among four components of emotional intelligence (emotional appraisal, positive regulation, empathic sensitivity, and positive
utilization) and three components of teacher burnout (emotional exhaustion, depersonalization, and reduced personal accomplishment) were investigated in a sample of 167 Chinese secondary school teachers in Hong Kong. One hypothesized and five competing models were constructed and tested using structural equation modeling procedures. The hypothesized model provided an adequate and moderately good fit, suggesting that emotional exhaustion, influenced by emotional appraisal and positive regulation, was causally prior to depersonalization and personal accomplishment, but personal accomplishment could develop relatively independently from the burnout components through the influence of positive utilization of emotions (Chan, 2006).

One hundred sixty beginning teacher candidates were surveyed using the Emotional Skills Assessment Process. According to the Emotional Intelligence Scale the candidates needed to strengthen skills in assertion, comfort, empathy, decision making, drive strength, time management, commitment ethic, self-esteem, stress management and deference. The skills leadership, aggression, and change orientation were current strengths. To face the challenges of a diverse classroom, these skills need to be developed, strengthened or enhanced if candidates are expected to have a longer teaching career (Justice and Espinoza, 2007).

Rossen (2007) studied the validity of emotional Intelligence and its ability to predict important outcomes. The purpose of this study was to examine the construct of EI measured by the MSCEIT. Specifically, this study investigated the validity of the MSCEIT. Results of this study revealed internal consistency estimates were acceptable for higher-order factors, although unacceptable for some subtests.
Overall EI and scales scores on the MSCEIT correlated with personality and in the low to moderate range, demonstrating convergent and divergent evidence of validity. Overall EI also correlated significantly with self-reported SAT scores, psychological well-being, peer attachment, and alcohol use. However after controlling for the effects of g and personality, EI contributed little to no additional explained variance in a number of real-outcomes. Alcohol use was the only criterion on which EI explained additional variance. Further, results indicated that the proposed theoretical structure of the MSCEIT is an improper model. Thus, the present study raises concerns about the construct of EI and its measurement with the MSCEIT.

Downey (2008) explored the relationship between emotion and job satisfaction among community college administrators. Elevated satisfaction scores were associated with positive emotional temperaments and elevated emotional intelligence. Optimistic administrators in good moods were more satisfied than pessimistic administrators in bad moods.

Kremenitzer and Miller (2008) discussed emotional intelligence and offer a teacher self-assessment tool to help teachers reflect on and improve their sensitivity. They include suggestions for making the classroom an emotionally intelligent environment.

In this exploratory case study of a primary school in the north-west of England, which incorporated questionnaires and interviews with teachers, focus groups with pupils and classroom observations, researchers sought to explore teachers' perceptions of what constituted emotional literacy, how this was practiced
Chapter II

Review of Related Literature

Emotional Intelligence of DTEd Trainees of Pudukkottai District

and modeled in the classroom, what factors influenced the development of EL initiatives and their perceptions of the benefits of improved EL. Key themes that emerged from the data were presented and discussed in the context of developing emotional literacy in schools (Perry, Lennie, and Humphrey, 2008).

Subramanian and Cheong (2008) explored the emotional intelligence of Form One mathematics and science teachers. The emotional intelligence of the teachers was determined using the Emotional Intelligence for Mathematics and Science Teachers (EIMST) survey instrument. It was adapted from related instruments and then pilot tested for validity and reliability. A total of three hundred and twenty five (325) Form one mathematics and science teachers from two Districts in Selangor were involved in this survey method of data collection. Descriptive statistics in the form of frequency and percentage were computed for emotional intelligence. Inferential statistics such as the t-test was used to compare the emotional intelligence between mathematics and science teachers. The findings showed that there was no significant difference in the emotional intelligence between the mathematics and science teachers, though a higher mean value of emotional intelligence was noted for mathematics teachers compared to the science teachers. However, analysis based on the individual subscales of emotional intelligence showed that there was significant difference in emotional intelligence between mathematics teachers and science teachers for the subscale of regulation of emotion. The mathematics and science teachers ranked average in their emotional intelligence.
Castro-Schilo and Kee (2010) examined relationships between emotional intelligence, measured by the Mayer-Salovey-Caruso Emotional Intelligence Test, and right hemisphere dominance for a free vision chimeric face test. A sample of 122 ethnically diverse college students participated and completed online versions of the forenamed tests. A hierarchical regression was performed to test for the hypothesized interaction between gender and EI on the right hemisphere bias score. No significant main effects were found for gender or total EI score. However, when entered into the model, the interaction term contributed an additional 4.5% of the variance in right hemisphere dominance for the processing of facial emotions. Descriptively, men with greater EI were associated with higher right hemisphere dominance in the free vision test, while no association was observed for women.

Hoffman, Hutchinson, and Reiss (2009) examined the impact of training early childhood teachers in an emotional intelligence and classroom management program titled Conscious Discipline. The researchers conducted eight one-day workshops monthly from September through April to an initial group of more than 200 participants. To assess attitudinal changes teachers answered a survey about their school climate and classroom management methods. The survey was initially given in September to participants (n=206) consisting of pre-kindergarten through sixth grade teachers with no exposure to the Conscious Discipline workshops and then again in April to a subset of the group who completed the workshop (n=117). The statistical discriminant analysis found significant improvement in the teachers' perceptions of school climate and in their knowledge and use of these new classroom management techniques (p less than 0.05). The study demonstrated that
the untrained group was unaware of the social relationship and cultural principles of Conscious Discipline that included releasing external control, embracing conflict resolution and implementing a more emotionally targeted reward structure in the classroom. Initial participants also expressed being unsatisfied with their school climate. However, those teachers who completed the workshops and were highly committed to using the Conscious Discipline skills exhibited a heightened positive feeling about school climate. Though, the more fully-engaged teachers scored somewhat lower on the favorable school climate dimension than those teachers who were only minimally using Conscious Discipline techniques. Many teachers also showed improvement in student/teacher relationships \((r=0.325)\) and in mutual support among teachers \((r=0.306)\).

Peters, Kranzler and Rossen (2009) examined the criterion-related validity evidence of scores on the Mayer-Salovey-Caruso Emotional Intelligence Test: Youth Version-Research Version. This study investigated the relationship between scores on the MSCEIT-YV and chronological age. Results provided initial support for the construct validity of the MSCEIT-YV.

Pettit, Jacobs, Page and Porras (2009) assessed the relationship between perceived emotional intelligence \((i.e., \) recognizing, expressing, monitoring, managing, and reflecting on emotions) (Presbury, Echterling and McKee, 2007) and self-reported health behaviors among college students. A convenience sample of 418 undergraduates completed online surveys consisting of items from the Brief Stress and Coping Inventory (Rahe and Tolles, 2002) which included measures of health behaviors, conceptualized as coping responses to stress, and the 30-item Trait
Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey and Palfai, 1995) which measures perceived emotional intelligence. Logistic regression analyses revealed relationships among perceived emotional intelligence factors (i.e., attention, clarity, and repair), gender, and a number of health behaviors: consuming more than seven alcoholic drinks per week, eating meals in pleasant surroundings, eating meals slowly and calmly, exercising at work/home, exercising moderately and regularly, exercising vigorously and regularly, controlling pace of life, and maintaining sufficient energy reserve (p less than 0.05). Independent t-tests revealed that females reported higher levels of emotional attention than males (M = 48.37, M = 44.12; p less than 0.001). Two-way contingency table analyses indicated that females were more likely to eat meals in pleasant surroundings and exercise at work/home, while males were more apt to consume more than seven alcoholic drinks per week, exercise vigorously and regularly, maintain sufficient energy reserve, and acquire sufficient sleep (p less than 0.05). Results suggested that emotional intelligence had the potential to offset behaviors that had been associated with higher levels of morbidity and mortality.

Polat and Ulusoy-Oztan (2009) conducted a survey to reveal the relationship between fourth and fifth grade students and teachers' emotional intelligence perception. The data of the survey was gathered from the fourth and fifth grade students and teachers in the schools in central district of Izmit chosen by chance with the emotional intelligence perception scale of Wong and Law (2002). At the end of the survey, a meaningful and positive connection was found out between the students and teachers' emotional intelligence perception. It was seen that teachers'
emotional intelligence management skill affects the emotional intelligence skill which students use positively and was an important explanatory variable. Accordingly, enhancing teachers' skilful use of emotional management has an effect on the improvement of students' own emotional management.

This study examined the relationship between Emotion Regulation Ability (ERA), as assessed by the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), and both job satisfaction and burnout among secondary-school teachers (N = 123). It also examined the mediating effects of affect and principal support on these outcomes. ERA was associated positively with positive effect, principal support, job satisfaction, and one component of burnout, personal accomplishment. Two path models demonstrated that both positive affect and principal support mediated independently the associations between ERA and both personal accomplishment and job satisfaction (Brackett, 2010).

Di Fabio and Blustein (2010) assessed the relationship between emotional intelligence and decisional conflict styles. Five hundred and twenty-eight Italian high school students (median age = 18; SD = 0.76) were given the Melbourne Decision Making Questionnaire (MDMQ) and the Bar-On Emotional Quotient Inventory: short (Bar-On EQ-i:S). The ‘Intrapersonal’ dimension of emotional intelligence emerged as the best inverse predictor of nonadaptive styles, whereas the ‘Adaptability’ dimension was the best predictor of the adaptive style of vigilance; the ‘Interpersonal’ dimension of emotional intelligence was associated with the nonadaptive styles. The results provided an in-depth look at the relationship
between the emotional intelligence construct and the decisional conflict styles, yielding new areas of research, assessment, and intervention.

2.2.2 Studies done in Academic Achievement

2.2.2.1 Indian Studies

Koreswara and Reddy (1998) explored reading achievement in relation to demographic variables, experiments in education. A sample of 1296 subjects (equal number of boys and girls) studying Grades VIII, IX and X were selected from 18 high schools of Andhra Pradesh. A high School Reading Achievement Test in Telugu was used to measure the reading achievement of the subjects. Mean, S.D., 't' test and ANOVA were used to analyse the data. Girls were better than boys in reading achievement. Class as a variable affected reading achievement. Students were found to be far in Class X than in Class VIII or Class IX. Students of residential schools performed better than day scholar students in rural and urban areas. Region and locality had no significant influence on reading achievement of high school students.

Mohanasundaram and Kumar (2000) explored whether there was any significant correlation between the hemisphericity and achievement of standard XI students studying history in higher secondary schools. Normative survey method was adopted in the study. A sample of 300 students studying history at standard XI in higher secondary schools in Thanjavur district of Tamil Nadu were selected using stratified random sampling technique. Style of learning and thinking test and Achievement test in history were used to collect the data. There was a significant difference in achievement between the students with right and integrated
hemisphere dominance. There was no significant difference in achievement in history between the students with left and right and left and integrated hemisphere dominance. There was no significant correlation between left and right and left and integrated hemisphere dominance and achievement in history of the students. There was a significant correlation between right and integrated hemisphere dominance and achievement in history of the students. It was inferred that the right hemisphere dominance contributes more to the achievement than the integrated hemisphere dominance. The study suggested that by activating the right hemisphere of the brain, the achievement of the students in history subject could be improved.

Mohanasundaram and Murugesan (2000) studied the correlation between personality and scientific creativity, personality and achievement, scientific creativity and achievement of standard XI students studying zoology in higher secondary schools. Normative survey method was adopted in the study. A sample of 308 students studying zoology in higher secondary schools in Trichirappalli District of Tamil Nadu was selected using stratified random sampling technique. Scale of introversion and extroversion, Verbal test of scientific creativity and Achievement test in zoology were used as tools for this study. There was a significant correlation between the personality and scientific creativity of the students. The extrovert personality contributed more to the scientific creativity of the students. There was a significant positive correlation between the personality and achievement of the students. The extrovert personality contributed more to the achievement of the students. There was a significant positive correlation between the scientific creativity and achievement of the students. The study revealed that by cultivating
and improving the extrovert personality of the students’ one could enhance the scientific creativity which in turn would enhance the achievement of the students.

Ellekkakumar and Elanakathirselvan (2001) assessed the achievement motivation of higher secondary students in Physics and achievement in Physics: Descriptive-Normative survey method was employed in the study. The sample was taken 530 students studying in the second year of higher secondary school, in Cuddalore district in Tamil Nadu, using probability sampling method for the study. Achievement Motivation Inventory (Prayag Mehta, 1969) and Academic achievement were used as tools for the study. The mean scores of achievement related motivation was higher for girls than boys. The positive correlations were found between the achievement related motivation and achievement marks in Physics in respect of girls, students studying in Tamil medium.

Suresh (2003) examined the relationship between extraversion-introversion adolescents and their adjustment and academic achievement. The sample was selected using stratified random sampling method. It consisted of 1,418 adolescents from Thiruvananthapuram Revenue District. The tools used for data collection included the Kerala Introversion-Extraversion Scale, the Extraversion-introversion Trait scale, Adjustment scale, Academic Achievement Indices and personal data Sheet. Statistical techniques such as mean, standard deviation, t-test, Karl Pearson's Product Moment Coefficient of Correlation and Partial correlation values were used. The relationship between introversion and academic achievement was positive introversion adolescents who belong to ‘high income families’. The relationship between introversion and achievement introversion English was negative.
adolescents who belong to the group 'both the parents are alive'. The relationship between academic achievement and home adjustment was positive introversion adolescents who belong to the group 'father alone alive'. The relationship between academic achievement and community adjustment was negative introversion adolescents who belong to 'high income families'. There was no relationship between academic achievement and adjustment in adolescents who belong to forward castes', 'low income families', 'nuclear families' and 'large families'.

Bhardwaj (2004) studied the institutional climate of DIETs in relation to morale and job satisfaction of teacher educators and academic achievement of pupil-teachers. The sample consisted of 14 DIETs (50% of the DIETs of Delhi, Haryana and Rajasthan) selected randomly. All the teacher educators of these institutions were the respondents. Organisational Climate Description Questionnaire (SOCDQ) by Halpin Crofts, Teacher Morale Inventory (TM) developed by Saroj Pandey and Brayfield and Rother's Job Satisfaction Index by Rathore were used. T.scores, Co-efficient of Correlation (Pearson Method), t-test and Graphical Representation were computed. There was a positive and significant relationship between individual characteristic attribute of teacher educators morale and job satisfaction of male teachers. Teacher educators' morale as a whole had positive relationship with job satisfaction for male teacher educators. Various dimensions of the organizational climate appear to contribute significantly to academic achievement. Out of the eight dimensions, only three dimensions namely. Psychophysical hindrance, intimacy and humanized thrust were found to exert a positive influence on academic achievement.
Begum and Phukan (2005) explored the correlation between academic achievement and intelligence. The sample consisted of 180 students of class IX, out of which 118 were male and 62 female students. Total Annual marks obtained by each student in last annual examination were considered as his/her Academic Achievement score. Group test of intelligence (13 to 17 + year) developed by Dr. G.C. Ahuja (1976) was administered and the scores obtained by each student in the test was considered as his/her intelligence score. Results revealed that the positive correlation ($r = 0.70$) was observed between Academic Achievement and Intelligence of the students. The high Academic Achievers had high intelligence level than that of the low Academic achievers which might make difference in their intelligence scores.

Vamadevappa (2005) examined the effectiveness of parental involvement on academic achievement among higher primary students. The sample of 200 students studying in 6th standard consisting of 100 boys and 100 girls were selected from four higher primary schools of Davangere in Kamataka through random sampling technique. Parental involvement rating scale (PIRS) by Abdul Gafoor (2001) and Achievement test constructed by the researchers (2002) were used to collect the data. Pearson's product moment correlation, and 't' test were employed. There was a positive significant relationship between parental involvement and academic achievement. There was a significant difference in the achievement scores of boys and girls of high parental involvement group. There was no significant difference in the achievement scores of boys and girls of low parental involvement group. There was a significant difference between high achievers and low achievers with respect
to parental involvement. There was a significant difference between boys and girls in their academic achievement.

Fauzia (2006) explored the factors contributing to the academic achievement in early childhood education. Fifty eight young children of Junior KG and Std I of an English medium school were selected as sample. Out of fifty eight English medium school-going children, 29 were from Standard I and the rest were from Junior. KG These children were studied for a period of 8 months in order to find out the factors contributing to their academic achievement (marks calculated from grades obtained in classroom assessment). For this purpose, chosen background variables were children's mental age, ordinal position, family type, efforts put in academic learning at home and in school, regularity to school and parental education. The mental age of the children was assessed by administering both verbal and nonverbal suitable psychological tests (Gessell, Seguin, Pathak and Raven). Information about the child's ordinal position, the child's effort put in doing school associated work, parental involvement in helping the child learn at home and parental education etc., was collected by personally interviewing the child's parents. The analysis showed that out of the enlisted back ground variables, the child's mental (r = 0.41), the child's put in effort in learning at school (r = 0.74) as well as at home (0.74) and child's regularity to school (r = 0.70) had a significant positive correlation with the Junior KG children's Academic Achievement.

Vyas (2006) conducted a study of learning style, mental ability, academic performance and other ecological correlates of under graduate descent girls of Rajasthan. A sample of 500 girls from Class XII of 16 Government Senior
Secondary schools of Baran, Bundi, Jhalawar and Kota District in Rajasthan was taken. Under ecological category the investigation has opted the area (urban/rural) and the level of parent’s education, their occupation and income. The tools used include Learning Style Inventory by K.K. Rai and S.K. Saxena and academic performance marks obtained by the students in board examination. The statistical techniques used were Mean, S.D., ‘t’ test and ‘F’ test for data analysis. The environmental, emotional, sociological dimension of learning style did not affect significantly the academic performance of girls. Residence as urban/rural and ecological correlates had significant effect on the academic performance of girls. Parents’ education, occupation and income did not affect significantly the academic performance of girls. The environmental dimension of learning style preference did not affect the academic performance where as mental ability influence the academic performance of students.

Kishore and Suneela (2007) conducted a study on physical fitness and academic achievement of class VIII pupils. Normative survey method was considered to be suitable to collect data. The sample consisted of 200 pupils of Class VIII from Guntur. A physical fitness test battery, comprising 100 meters run, shot-put and long jump, height and weight measurements were used Norms were prepared on percentile ranks and marks were awarded ranging from 0 to 100 on three items: 100 meters, shot-put and long jump. Physical fitness of government school boys was more than that of their private school counterparts but intelligence, the case of girls the reverse was true with private school girls doing better. Also there was a significant difference in the Mean physical fitness of girls studying in
government and private school, but boys of different types of schools did not differ significantly. The Physical fitness of girls studying in English medium school (generally private schools) was significantly better than their Telugu medium school pupils (generally government schools). In comparison as seen earlier the English and Telugu medium school boys did not differ significantly in their physical fitness. There was no apparent association between physical fitness and academic achievement over the whole sample and also of the boys group but in case of girls there was a significant association.

Surekha (2008) verified the relationship between students’ adjustment and academic achievement. A sample of 115 students of Warangal city in Andhra Pradesh was selected by simple random sampling technique. The tool Adjustment Inventory for School Students (AISS) by A.K. Pord. R.P. Singh was used to collect the data. The study revealed that the boys and girls from private schools are well adjusted and academically performed better than the boys and girls from government schools. The coefficient of correlation between the students, adjustment and academic achievement was found to be -0.29, which was significant at 0.01 level. It indicated that low scores in adjustment tend to accompany with high scores in academic achievement.

2.2.2.2 Foreign Studies

Schnedeker (1998) analyzed the psychological factors in school achievement. This study assessed the degree to which these factors students' theory of intelligence, along with academic self-efficacy and application of learning strategies predict achievement in grades seven and eighth measured by earned
grades, after controlling for the level of skills which students had at entrance to middle school. The sample consisted of 282 seventh and eighth grade students from a suburban middle school in northern New Jersey. Students completed surveys to assess their theory of intelligence (incremental vs. entity), level of self-efficacy, and use of learning strategies (LASSI). Results of multiple regression analysis indicated that only two variables (motivation and information processing from the LASSI) added significantly to predictions of grades after controlling for academic skills at entrance. In addition, analysis of performance by gender indicated that girls outperformed boys as measured by trades, although skill levels measured by standardized testing were identical.

Monk (2000) studied the variables associated with academic achievement of African-American males in four year undergraduate educational institutions: a synthesis of studies. In this review of 13 studies, 48 variables associated with academic achievement of undergraduate, African-American males were identified. These variables were placed into three categories: Personal variables, demographic variables, and institutional variables. Personal variables were sub-divided into non-cognitive and cognitive variables. The personal non-cognitive variable included emotional intelligence, self-confidence, self esteem and self concept. Theses personal non-cognitive variables were positively associated with academic achievement of African-American male under graduate's students.

Perry and Stephen (2000) studied the effect of psycho-social variables on the academic achievement of 8th and 9th graders. The present study examined the effect of specified demographic and psycho-social variables on the academic achievement
of locally-situated (main-stream) 8th and 9th grade students. Psycho-social variables considered in this study included familism, perceived discrimination, time management and a host of home and school factors. The result was used for comparative analysis with previous research using the same instrument (YAGQ-R), but with immigrant populations. Results indicated that psycho-social factors were significant predictors of Academic Achievement when demographic variables were controlled. Psycho-social variables were found to account for more of the variance in Achievement with locally situated students as compared to immigrant adolescents. Shared psycho-social predictors among both groups included familism, perceived discrimination and time management. There were also differences found between the groups with some predictors being significant with the immigrant populations (i.e., Achievement motivation, self-esteem, and number of friends) that were not found significant for the locally situated population.

Benson (2003) studied the relationship between school climate and student achievement in low-income elementary schools. The purpose of the current investigation was to learn more about the relationship between school climate and student achievement especially in schools that serve children from low-income homes. More specifically this study was intended to test the notion that a positive School Climate is associated with student achievement among economically disadvantaged schools, determine the extent to which each of eight dimensions of school climate, predict student achievement and further explore the domain through a qualitative investigation of other factors identified in the educational literature as being associated with achievement. Mean pass-rate percentages of third-graders
were obtained from four elementary schools in southeastern Virginia. To control for differences in district policy and configuration, these schools were all in the same school district and served children in the same grades. Social class was controlled by selecting schools with similar proportions to students receiving free or reduced price lunches. Based on an analysis of third-grade SOL scores, the schools were classified as high-achieving I (one school), medium-achieving (two schools), or low-achieving (one school). The Charles F. Kettering, limited school climate profile (CFK) was administered to 170 teacher's staff, and administrator's at all four schools. In addition, 17 of these participants answered a series of open-ended questions about school climate. School climate and student achievement were positively (almost linearly) related \( (p<0.01) \). When ranked by achievement the climate means of the four schools fell in perfect rank-order. Moreover, significant \( (p<0.05) \) effects were found on all & CFK domain sub-scaled (trust, respect \textit{etc.}).

Pearson (2005) made a study on the relationship of social skills and learning behaviors to academic achievement in a low-income urban elementary school population. The purpose of this study was to examine the relationship between the ability, social skills, learning behaviors, and gender and the academic achievement of the children who attended a low-income urban elementary school in Baltimore, Maryland. The participants in the study included 72 students who attended 1\textsuperscript{st} and 2\textsuperscript{nd} grade and their teachers in this low-income elementary school in Baltimore. Each teacher completed the Social Skills section of the Social Skills Rating System (SSRS) and the Learning Behavior Scale. Each student was assessed on the Otis-Lennon School Ability Test-8 (OLSAT-8) and his or her achievement scores from...
the Stanford Achievement Test-10 (Stanford 10) were accessed. The resulting model comparison indicated that school ability and learning behaviors both have significant direct effects academic achievement. School ability and social skills were found to pave significant direct effects on learning behaviors.

Ward (2006) conducted a study on achievement and self-concept in diverse populations of gifted middle school students. The purpose of this study was to identify differences in achievement and self-concept, and the relationship between these two constructs in related areas, among ethically diverse sixth grade students identified by their school divisions as gifted. Scores from the IOWA test of basic skills, standardized test of achievement, and self-concept scores from the self-description questionnaire II, were compared using analysis of variance and Bonferroni post hoc procedures. The achievement scores in reading, language expression and usage, mathematic problem solving and data interpretation and mathematic concepts and estimation for the Caucasian group were significantly above those of the African American and Hispanic groups in all areas. The African American group scored significantly over the Hispanic group in reading, language expression and usage and mathematic problem solving and data interpretation \((p, 0.016)\). There were no significant differences in any of the domains of self-concept. For the Caucasian group, there was a significant correlation between achievement and self concept in all four areas \((P<01)\). There were significant correlations between math self-concept and mathematic concepts and estimation \((p<0.01)\) for the Hispanic group, but no correlations in language expression and
usage or Reading for this group. There were no significant correlations for the African American group.

White (2007) explored the effect of highly qualified teachers on student achievement in high algebra 1 in North Carolina. This study examined the effect of highly qualified teachers on student achievement in high school Algebra 1 in North Carolina as measured by mean scores on the End-of-Course (EOC) Examination. The purpose of the study was to determine if there was a significant difference between achievement level of students with a highly qualified teacher and the achievement level of students with a non-highly qualified teacher in high school Algebra 1 in North Carolina. All data relating to teachers highly qualified status and student's academic achievement was collected from the database at the North Carolina Education Research Data Center (NCETDC) at Duke university. A Tukey Test was conducted to determine if there was a significant difference between the achievement levels of Caucasian African-American and Hispanic students with a highly qualified teacher versus a non-highly qualified teacher. Analyses were also conducted by economic status. Results of the data indicated that there was a statically significant difference in the achievement levels of students when taught by a highly qualified teacher versus a non-highly qualified teacher. In terms of group performance, it was found that Caucasian students taught by highly qualified teachers had significantly higher scores than I African American or Hispanic students.

Jurisevic, Glazar, Pucko and Devetak (2008) determined the level of the pre-service primary school teachers' intrinsic motivation for learning science in relation
to some other subjects. The focus of the research was on the intrinsic motivation for learning chemistry and its correlation to students' academic achievements in chemistry. The student included 140 first-year pre-service primary school teachers who completed the questionnaire about their intrinsic motivation and knowledge test about general chemistry concepts. Their results showed that students were more or less equally motivated for chemistry as for any other subject, but that the intrinsic motivation plummets as the level of abstraction in individual subjects, such as chemistry and mathematics, increased. It had been similarly established that of the three levels of chemistry learning- namely, macroscopic, submicroscopic, and symbolic-students were the least motivated to study concepts at the symbolic level. The correlation between the level of motivation and the knowledge test results was not strong; nevertheless, it was statistically significant, while the correlation between motivation and the mark achieved in chemistry was statistically not significant.

2.2.3 **Studies done in Computer Self Efficacy**

2.2.3.1 **Indian Studies**

Ravikumar (2006) explored Educational Technology Efficacy among the students of Biological Sciences at Cuddalore District. The sample for the present study was 2000. The findings were: the Self Efficacy in Equipmentation of boys and girls was almost equal among the Biology Students of Cuddalore; Biology students of Cuddalore differ significantly in their Self Efficacy in Equipmentation with respect to their Colleges they were studying; The Medium of Instruction in...
their Under Graduation had not influenced the Biology Students any way to differ in their Self Efficacy in Equipmentation.

Vincentdepaul (2008) studied the Commitment among Primary School Teachers with respect to their Job Satisfaction, Self Efficacy and Educational Technology Efficacy. In this study Educational Technology Scale was developed and validated. It had three dimensions viz., Efficacy on Instructional Devices, Efficacy on Instructional Materials and Efficacy on Instructional Methods/Strategies. Teacher Educational Technology Efficacy (TETE) was the predictor for none of the selected sub categories. However in the category Teachers who are Graduates in More Committed Main Category, Educational Technology Efficacy is one of the predictors of Teacher Commitment (TC). The findings of the differential study showed that there existed significance difference between More Committed Teachers and Less Committed Teachers in Teacher Educational Technology Efficacy (TETE) in the sub categories Urban Teachers, Teachers who are 35 and more than 35 years of Age, Teachers who are not Graduates, Teachers who have Diploma in Teaching, Teachers who have less than 12 years of Teaching Experience, Teachers who have Attended Less than 10 In-service Training Programmes and All Categories combined.

2.2.3.2 Foreign Studies

Borchers (1992) evaluated effects of in-service teacher education on rural-school teachers' behaviors and beliefs about microcomputers in science teaching
and described the ENLIST Micros training program and the beliefs, behavior, and evaluation instruments utilized. Results indicated significant changes in teachers' beliefs toward and use of microcomputers in science instruction.

Faseyitan and Hirschbuhl (1992) examined the effects of personal attributes, organizational factors, and attitudinal factors on the adoption of computers for instruction by university faculty. Results were reported which indicated that the technological orientation of the faculty's discipline, computer self-efficacy, computer utility beliefs, and attitude toward computers were predictors of adoption.

Delcourt and Kinzie (1993) described the development of two instruments for use with pre-service and practicing teachers: Attitudes toward Computer Technologies and Self-Efficacy for Computer Technologies. Graduate and undergraduate students completed the instruments. Results provided initial instrument validation. This study presented data on content validity and results of exploratory analysis examined predictors of self-efficacy.

Enochs (1993) conducted a study to develop and partially validate an instrument to measure the self-efficacy beliefs of teachers related to utilizing microcomputers in science instruction. The resulting instrument contained two subscales: the Outcome Expectancy and Personal Self Efficacy Scales.

Bakar and Mohamed (1998) investigated the preparedness of vocational and technology teachers to integrate computer technology found that teachers were not knowledgeable about computers or computer software and thought they were not skillful in using spreadsheets, word processing, desktop publishing, database
management, and programming software. Most teachers indicated they would like to attend training sessions.

Koul and Rubba (1999) validated a Personal Internet Teaching Efficacy Beliefs Scale (PITEBS) using a sample of 389 in-service teachers who were participants in an Internet-based professional development project. The scale was then used to assess changes in self-efficacy beliefs among 155 participants in summer workshops. The PITEBS appeared ready to be utilized for future research and evaluation studies.

Levin (1999) examined how elementary teacher candidates in a program that emphasized the integration of computer-based technologies as tools for teaching and learning used technology, both personally and professionally, during the teacher preparation program. The study also examined factors that influenced their disposition to use and integrate computer-based technologies into their teaching. This study presented baseline data from three points during the pre-service component of a longitudinal study of members of a second cohort group of pre-service elementary teachers involved in educational technology. It described four factors, some internal or personal and others external or contextual, that influenced the dispositions of pre-service teachers toward integrating technology across the curriculum: sense of self-efficacy about teaching and using computer tools; attitudes about using computer-based technologies; skill and knowledge base about computer technology; and actual usage of technology in classrooms during internships and student teaching. In addition, several illustrative cases conveyed the scope of technology integration by elementary student teachers during the first phase of the
study. Results suggested that prospective teachers could and would apply what they had learned about computer-based technology to their teaching situations. Study participants had relatively positive efficacy for teaching, high efficacy and attitudes about using specific computer-based technology, and above average computer literacy upon graduation.

Jones (2000) investigated Australian pre-service teachers’ use of computers during teaching practice. Participants were 46 graduates entering a pre-service elementary teacher education course at an Australian university in 1999. Data were collected using the Personal Computer Efficacy Questionnaire at the beginning of the course. The School Computer Access Survey was administered twice during the year following a practice teaching in schools. Data analysis indicated that respondents had a high level of belief in their ability to perform basic computing tasks. The results also highlighted the lack of technology use within Australian elementary schools and found that classroom teachers who did not use computers themselves did not encourage student teachers to use them as part of the teaching-learning process. Though computer use by student teachers rose over time, there was still a low level of computer use overall, with one in four student teachers not using computers in the classroom.

Kagima and Hausafus (2000) examined relationships between faculty computer self-efficacy and integration of electronic communication when teaching. Results showed computer self-efficacy scores differed on age, gender, college, integration, and computer experience. Findings recommended faculty development
efforts to increase self-efficacy by providing hands-on experiences in technologically supported environments.

Milbrath and Kinzie (2000) conducted a longitudinal study at the university of Virginia to examine pre-service teachers' changes in computer anxiety; perceived usefulness of computer technology; frequency of using word processing, email, spreadsheets, database management, statistical packages, and CD-ROM databases; and perceived self-efficacy.

Miltiadou and Yu (2000) discussed the development and validation of an instrument that measured online students' self-efficacy beliefs with communication technologies such as e-mail, Internet, and computer conferencing. Content validity, construct validity, and reliability were established in order to validate this instrument. Factor analysis and correlational analysis revealed that all items could be collapsed into one scale. This indicated that there was only one unified construct for self-efficacy. The Cronbach's Coefficient Alpha for the whole instrument was 0.95.

Albion (2001) described a study at the university of Southern Queensland (Australia) that measured self-efficacy for computer use of teacher education students at the beginning of their course and again following a semester in which some students had completed computer courses. The amount of time spent using computers contributed most to the variance in self-efficacy.

Pratt (2002) explored the various types of purposes teachers had for using the Internet with their students and examined the role of teachers' confidence related to such use. Interview data analysis of 234 8\textsuperscript{th} grade teachers who currently use the
Internet revealed that they varied in the types of purposes they had for using the Internet as well as in the confidence they had related to that use. This study claimed that a certain form of self-efficacy, Internet Teaching Efficacy, was associated with the purposes one had for use with their students. Specifically, while lower Internet Teaching Efficacy teachers reported statements regarding the use of the World Wide Web to promote lower level thinking skills and its basic use, higher Internet Teaching Efficacy teachers tended to incorporate broader purposes including autonomous learning and higher level thinking skills in their descriptions of purpose.

Chu (2003) tested the effects of Web page design instruction on improving computer self-efficacy of pre-service teachers. Various computer experiences, including weekly computer use, weekly internet use, and use frequencies of word processing, e-mail, games, and presentation software were significantly related to computer self-efficacy. Use frequencies of word processing and computer graphics software, weekly computer use, and age were significant predictors of computer self-efficacy.

Kay and Knaack (2005) evaluated the effect of an integrated, laptop-based approach on pre-service teachers' computer attitudes, ability and use. Pre-post program analysis revealed significant differences in behavioural attitudes and perceived control (self-efficacy), but not in affective and cognitive attitudes. In addition, there was a significant improvement in all 10 computer ability areas (operating systems, communication, World Wide Web, Word Processing, Spreadsheets, database, graphics, multimedia, web page design, and programming).
Finally, pre-service teachers used laptop computers significantly more in a university setting than in their field placements.

Kotrlik and Redmann (2005) examined the extent of technology integration in instruction by adult basic education teachers. Teachers were in the earlier stages of integrating technology and are more active in the area of exploration. However, they were not experimenting with the use of technology at the same level and have not been innovative in integrating technology at the advanced level. Teachers felt some anxiety when it comes to technology integration; however, they perceived they were effective regardless of whether they had integrated technology, and they were encountering barriers. As teachers perceived an increase in barriers, their integration of technology decreased; also, as the availability of student e-mail and the number of computers with internet connection in the classroom and/or lab increases, their integration of technology increased. Teachers' perceived technology anxiety and their self-perceptions of their teaching effectiveness did not explain the extent of technology integration.

State and national standards continue to prod teacher education programs towards preparing teacher candidates who are capable of integrating computer technologies into their teaching methodologies. However, providing experiences and resources for this type of teacher training necessarily relied on students possessing basics skills in computer use and having K-12 teachers who modeled productive technology integration in the classroom. While some high schools were managing to provide students with these skills and experiences, others are not, leaving teacher education programs to address the diverse levels of technological
skills in their teacher candidates. This study presented a description of the categories of computer skill levels represented in a freshman class of teacher candidates and how these candidates characterize their high school experiences with computers (Banister and Ross, 2006).

Hakverdi, Gucum and Korkmaz (2007) examined the factors influencing pre-service teachers' perceptions of computers' self-efficacy. Participants in the study were 305 pre-service science teachers at a four-year public university in Turkey. Two instruments were used for this study: the Turkish version of the Microcomputer Utilization in Teaching Efficacy Beliefs Instrument in a Science Setting (MUTEBI) and a questionnaire for collecting demographic information. A multiple regression analysis was conducted to examine the degree of association between the outcome variables (perception of personal self-efficacy in teaching with computers; perceptions of outcome expectancy) and the explanatory variables (personal use of computers, educational use of computers, level of computer use, grade level, school year, number of computer-related courses taken, age and gender). The findings of this study revealed that level of computer use and educational use of computers were closely related to the outcome measure of pre-service science teachers' personal self-efficacy in teaching with computers.

Shiue (2007) examined the relative strength of the factors that influence teachers' use of instructional technology. The study focused on teachers' use of word processors, spreadsheets, presentation software, e-mail, and Web browsers. A path analysis was performed on self-reported data from 242 secondary science teachers in Taiwan. Results showed that the decomposed theory of planned
behavior seriously over simplified the web of forces that influenced teachers' use of this technology. Teachers' technology use and their inclination toward its use (attitude and intention) were primarily determined by the teacher-technology interface (ease-of-use, computer self-efficacy, and perceived usefulness). The teacher-technology interface was influenced by the objective environment for instructional technology (technical support, computer access, and to a limited extent professional development opportunities). The objective environment was itself weakly influenced by the subjective environment (administrative support, peer use, and subjective norms).

Bakar, Konting, Jamian and Lyndon (2008) accessed teaching efficacy of University Putra Malaysia Science student teachers. The specific objectives were to determine teaching efficacy of Science student teachers in terms of student engagement; instructional strategies; classroom management and teaching with computers in classroom; their satisfaction with teacher education program and lastly to determine their attitudes towards teaching profession. Data were gathered using questionnaire. The sample size was 144. Findings indicated that a majority of the respondents had a high level of confident with their efficacy in term of teaching with computers in classroom (Mean: 3.89, S.D: 0.48). Pearson correlation showed that teaching efficacy and perception toward teachers education program were significantly correlated with each other (r = 0.464, p less than 0.05). The relationship between these two variables was positive and of moderate strength. In contrast teaching efficacy was weak and negatively correlated with attitude toward teaching profession (r = -0.146, p less than 0.05).
Ball and Levy (2008) investigated factors influencing instructors' intention to use Tegrity[R], an emerging educational technology in traditional Information Systems classes and other non-Information Systems classes. Specifically, the factors studied were computer self-efficacy, computer anxiety, and experience with the use of technology. Responses from 56 instructors from a small, private university were used to formulate a predictive model using ordinal logistic regression. Results showed that computer self-efficacy had the greatest influence on intention to use. As computer self-efficacy appears to be high among Information Systems instructors, administrators of other subjects were urged to pursue avenues to increase their instructors' computer self-efficacy when attempting to increase the acceptance of emerging educational technology in non-Information Systems classrooms.

Factors related to the nature of the teacher's personality, such as computer self-efficacy, self-concept, attitudes, motivation and needs were considered crucial to the integration and development of modern technologies in education. This study examined the relationship between individual characteristics of secondary school teachers and computer self-efficacy as well as teacher prospects with regard to modern technologies (Paraskeva, Bouta, and Papagianni, 2008).

Wu, Chang and Guo (2008) investigated the relationship among intrinsic and extrinsic factors influencing science teachers' intentions toward teaching with information technology (IT). A sample of 226 middle school science teachers in Taiwan completed a survey; the resulting data were tested against the research model using a structural equation modeling approach. Results indicated perceived
usefulness and computer self-efficacy were critical determinants of science teachers’ intentions about technology integration. Computer self-efficacy and perceived fit were important antecedents of both perceived usefulness and perceived ease of use; however, perceived ease of use had an adverse effect on perceived usefulness within the science teaching context.

Studies of undergraduate technology skills instruction found that classroom interactions between instructors and students can influence students' computer self-efficacy. These relationships are not well understood with respect to technology skills instruction of pre-service teachers as there is a dearth of such studies in teacher education literature. This study addressed the gap by analyzing video recordings of three educational technology classes to derive taxonomy of classroom interactions that occur during technology skills instruction. Survey and interview data were further used to determine how these interaction categories influenced pre-service teachers' computer self-efficacy (Koh and Frick, 2009).

Nikolopoulou and Gialamas (2009) investigated pre-service early childhood teachers' views and intentions about integrating and using computers in early childhood settings. For the purpose of this study a questionnaire was compiled and administered to 258 Pre-service Early Childhood Teachers (PECTs), in Greece. A confirmatory factor analysis was conducted and a one-factor model was accepted. Our results revealed very strong links between PECTs' views and intentions, being indistinguishable. Students expressed positive views-intentions and this constitutes one way forward towards the integration of information and communications technology in the classroom. From the path analysis model, direct and indirect links
were shown between PECTs' views-intentions and the year of study as well as other computer use-related variables. Year of study and computer self-efficacy had a significant effect on PECTs' views-intentions. Access to a computer at home had an indirect impact on PECTs' views-intentions via computer self-efficacy and years of experience with computers.

Pamuk and Peker (2009) investigated Turkish pre-service science and mathematics Teachers' Computer Self-Efficacies (CSEs) and Computer Attitude (CA) considering gender, year in program, and computer ownership as independent variables. Additionally the study aimed to examine the relationship between CSE and CA. Computer Self-efficacy Scale (CSES) and Computer Attitude Scale (CAS) were administered to 605 freshmen and senior teacher candidates. Descriptive results indicated that overall pre-service teachers had relatively high scores on both scales. Multivariate analysis of variance showed that a participant's gender was not a significant factor on his/her CSE and CA scores except for the computer liking sub-scale of the CAS. Seniors had higher scores than freshmen in the CSES and in the confidence dimension of the CAS. Those participants who owned computers had significantly higher scores on the CSES and CAS as compared to those who did not own a computer. A significant three-way interaction was found among the three independent variables, namely gender, major of study and computer ownership. Finally, correlational analysis showed that participants' CSES scores related to sub-scale scores of the CAS at varying degrees.

Teo (2009) examined the relationship between computer self-efficacy and intended uses of technology of student teachers (N=1094) at a teacher training
institute in Singapore. Self-efficacy was assessed by three factors: Basic Teaching Skills (BTS), Advanced Teaching Skills (ATS), and Technology for Pedagogy (TP), and intended use of technology was measured by two factors: Traditional Use of Technology (TUT) and Constructivist Use of Technology (CUT). Participants responded to a 7-point Likert-type scale for each factor. Analysis was conducted using the structural equation modeling approach and a good model fit was found for both the measurement and structural models. Results showed that significant relationships exist among BTS, TP, TUT, and CUT. However, ATS did not influence TUT and CUT in a significant way. Overall, the results of this study offered some evidence that student teachers' self-efficacy was a significant influence on whether they use technology in a traditionalist or constructivist way.

Ahmad et al. (2010) validated an extended Technology Acceptance Model (TAME) on the data derived from the faculty members of a university in an ongoing, computer mediated work setting. The study extended the original TAM model by including an intrinsic motivation component--computer self efficacy. In so doing, the study assessed the direct and indirect effects of computer self efficacy on the use of the technology, via the perceived usefulness and intention to use the technology voluntarily. The second purpose of the study was to evaluate gender and age invariants of the causal structure of TAME. This cross-validation procedure determined whether gender and age group moderated the causal structure of the model, and thus the generality of TAME. The data were collected from a self reported questionnaire administered to 731 faculty members of a public university in Malaysia. The results of structural equation modeling supported the adequacy of
TAME. Although the TAME’s causal structure was applicable to both male and female staff, age group appeared to moderate the structural relationships among the constructs of interest.

Gialamas and Nikolopoulou (2010) investigated in-service and pre-service Greek early childhood teachers' views and intentions about integrating and using computers in early childhood settings. Views and intentions were investigated via a questionnaire administered to 240 in-service and 428 pre-service early childhood teachers. Confirmatory Factor Analysis showed that the one-factor structure of the questionnaire holds in both populations. Measurement partial invariance between the two populations was confirmed. Comparing the two populations with regard to the degree of adopting positive views-intentions and the level of computer self-efficacy, teachers expressed more positive views-intentions and students reported higher computer self-efficacy.

Sang, Valcke, van-Braak and Tondeur (2010) studied the impact of Chinese student teachers' gender, constructivist teaching beliefs, teaching self-efficacy, computer self-efficacy, and computer attitudes on their prospective ICT use. For this purpose, a survey was set up involving student teachers from four normal universities in China (N = 727). Results showed that prospective ICT integration significantly correlates with all teacher related variables, except for gender. Building on the results of a path analysis model, prospective ICT integration could be directly predicted on the base of teacher thinking variables (constructivist teaching beliefs, teacher self-efficacy, computer self-efficacy and computer attitudes in education), and indirectly by the gender of the student teachers.
The primary aim of this study was to investigate pre-service English language teachers' perceptions of computer self-efficacy in relation to different variables. Secondarily, the study also explored the relationship between pre-service English language teachers' perceptions of computer self-efficacy and their perceptions of general self-efficacy. A sample of 288 pre-service English language teachers at Canakkale Onsekiz Mart university was surveyed. Three basic research instruments were used to collect data: The Computer Self-Efficacy Scale (Askar and Umay, 2001), The General Self-Efficacy Scale (Schwarzer and Jerusalem, 1995), and a survey questionnaire designed to obtain personal information and previous computer experience from the participants. The data were analyzed with the use of descriptive statistics. Frequencies and percentages were calculated and t-test, one-way ANOVA, and correlation analyses were used in the analysis of the data. The significant level was taken as 0.05. The findings indicated that pre-service English teachers had a moderate level of computer self-efficacy perceptions. Computer experience, frequency of use and gender were identified to create a significant difference in the perception of computer self-efficacy (p less than 0.05). Concerning grade levels, only between 1st and 4th ones a significant difference was found (p less than 0.05). The correlation analysis between general sense of self-efficacy and computer self-efficacy revealed a moderate and a positive correlation between the two psychological constructs. Finally, the regression analysis showed that computer experience was the variable that affected the computer self-efficacy beliefs of pre-service English teachers most (Topkaya, 2010).
2.2.4 Studies done in Emotional Intelligence and Academic Achievement

2.2.4.1 Indian Studies

Mohanasundaram, Balasuramanian and Vijaya (2004) investigated the emotional intelligence of 269 teacher trainees studying at DIETs and TTIs, selected through stratified random sampling technique and reported that men and women trainees did not differ significantly in their emotional intelligence. When trainees' emotional intelligence was correlated with their academic achievement, low but significant correlation (0.24) existed between the two. But there was no correlation between the emotional intelligence of trainees and their performance in language and social science subjects.

Latha, Ramasamy and Ananthasayanan (2005) studied the effect of emotional intelligence on teaching effectiveness in private school teachers and found that emotional intelligence in general, did not differentiate teaching effectiveness of school teachers. Its impact was very minimal except in two specific dimensions like teachers' sense of humour and mastery in the subject.

Kumar and Dileep (2006) examined the effectiveness of a newly constructed psychometric instrument to assess Academic Life Satisfaction along with the components of Emotional Intelligence. The Academic Life Satisfaction Scale is used to predict the scholastic achievement as an index of academic success. The investigators found that Academic Life Satisfaction is the best predictor of achievement in social studies of secondary school pupils in Kerala, India. The sample consisted of 763 standard VIII pupils, drawn through proportionate stratified
random technique. Appropriate weight ages were given to the strata such as gender, locality of schools, and type of management of schools.

Agrawal (2006) verified effect of Emotional Intelligence on the relationship between Deprivation and Academic Anxiety. The sample of 100 adolescent girls, age group 13-17 years were selected from different schools of Varanasi city. The tools used for data collection were Deprivation scale (D-scale) by S.K. Pal, K.S. Misra and K. Pandey, Academic Anxiety Scale (AAS) by S.K. Pal, K.S. Misra and K. Pandey and Emotional intelligence Test by K. Pandey. The Deprivation and academic anxiety were positively correlated in case of more emotionally intelligent girls compared to low emotionally intelligent girls. The Social deprivation and academic anxiety were positively correlated in case of emotionally intelligent girls due to their greater understanding of emotional behaviour of their own and others. The Parental deprivation and academic anxiety for more emotionally intelligent girls was positively correlated.

2.2.4.2 Foreign Studies

Sutars Toto (1996) studied the effect of gender and GPA on emotional intelligence. The purpose of this study was to investigate the effect of gender and Grade Point Average (GPA) on the EQ. The instrument used was the Emotional Intelligence Inventory which was administered to 138 students at the University of Alabama. The data were analyzed using multivariate factorial model with three factors of EQ as dependent variables: Compassion, Self Awareness, and Attunement and two independent variables: Gender and GPA. Multivariate analysis
of variance (MANOVA) was performed using Statistical Analysis System (SAS) version 608 on the IBM mainframe computer. The data showed there was an overall significant multivariate effect of Gender on the three factors of EQ. Female students had higher score on the compassion and the Self Awareness factors compared with male counterparts. However, there was no significant gender difference on the Attunement factor. Moreover, there was no overall significant multivariate GPA effect on the three factors of EQ.

Culver, Binghamton and Yokomoto (1999) investigated the optimum academic performance and its relationship with emotional intelligence. Their study reviewed the elements of flow and described educational activities and programmes which promote flow. They suggested how these could be tied to self-directed learning strategies to prepare professionals for life-long learning.

The corelational study between emotional intelligence and academic achievement by Abisamara (2000) indicated a positive relationship when emotional intelligence was compared with the high achievers.

Wells, Torrie and Prindle (2000) examined the role played by emotional intelligence on occupational success, seeking to correlate college grades with measures of emotional intelligence. The study, conducted at a Canadian community college, involved two student populations: an adult education group and a group of automotive service technicians in a pre-employment center. The BarOn EQ-i test of emotional intelligence was administered to both groups in the winter 2000 term. The test gave scores in five general areas: intrapersonal, interpersonal, adaptability,
stress management, and general mode, suggesting that it could yield information that would enhance student development. The adult education group (n=41) was tested at the end of a year of school experience; one group (n=12) of automotive technicians was tested at the end of their first year; the second group (n=9) was tested at the end of the two-year program. While the study results showed some small positive correlations between shop grades in the second year of the program and total scores on the test, the small sample size and the possibility of confounding variables limit the conclusions that could be drawn from this research.

D.B. Nelson and Nelson (2003) investigated the role of emotional skills in the academic achievement and retention of university freshmen. The research group was a randomly selected sample of first semester freshmen students (N=165), and cumulative grade point average was used as the criterion for academic success. The study was designed to investigate: (a) the relationship of emotional skills to academic achievement and retention, (b) gender and ethnicity differences in emotional skills, and (c) the emotional skill patterns of successful and unsuccessful freshmen. The results of the study indicated that the emotional skills of Time Management, Goal Achievement, and Assertive Communication were significant factors in freshmen achievement and retention.

La Civita (2004) examined the emotional intelligence factors: their relationship to academic achievement and the implications for retention of the at-risk community college student. This study examined the relationship between Emotional Intelligence factors and academic achievement of at-risk community college students. Specifically, this study examined the relationship of the Emotional
Intelligence factors of independence, problem solving, and stress tolerance with the Grade Point Averages (GPAs) of at-risk community college students as measured by the Bar-On Emotional Quotient Inventory (EQ-i). This study was initiated in order to expand the research on EI and student achievement in higher education. Results for the EQ-I and personal data of gender, ethnicity, and GPAs were gathered from 80 at-risk students who participated in the study. The setting was a community college in Southeastern Florida. The data analysis in this study revealed that the independent variables of independence, problem solving and stress tolerance were not significant in predicting academic achievement of at-risk community college students as measured by the dependent variable, the GPA's of these students.

Parker, Duffy, Wood, Bond and Hogan (2004), in an influential study, observed that the academic success was strongly associated with several dimensions of emotional intelligence particularly in the context of emotional and social competencies during the transition from high school to university.

Two studies were conducted to examine if EI could predict achievement above and beyond intelligence and conscientiousness. In the first study, a sample of students (N = 227, age range = 17-20 years, M = 17.02, S.D. = 0.77) were recruited and school performance served as an achievement criteria. In the second study, education, social status of profession, and average income were taken as vocational performance criteria and examined in a sample of employed adults (N = 207, age range = 27-43 years, M = 33.82, S.D. = 3.96) from the local community. By means of structural equation modeling, the data of both samples were separately tested for
sex differences as well as for a validity increment of EI. In both samples, EI could not explain any variance in the criteria beyond psychometric intelligence and conscientiousness. The tests for sex differences only showed sex-specific convergent validity of EI in the student sample, providing useful information on the developmental aspect of EI (Amelang, and Steinmayr, 2006).

Drew (2006) studied the relationship between emotional intelligence and student teacher performance. The purpose of this mixed methods study was to determine whether Student Teacher Performance (STP), as measured by a behavior-based performance evaluation process, is associated with Emotional Intelligence as measured by a personality assessment instrument. The study was an important contribution to the literature in that it appears to be the first study to explore the possibility an Emotional Intelligence assessment instrument could predict STP. All the student teachers (n - 40) at a small Public Mid Western College who planned their student teaching spring 2006 were selected as a sample. The Bar-On emotional quotient inventory was fused to measure the EQ, and College supervisors’ assessments of STP were related. However, data collected from the Cooperating Teacher and Student Teacher perspective did not reveal any statistically significant relationship for any EQ/STP variable pair studied. While total Emotional Quotient (EQ) scores and scores for the Intrapersonal, Interpersonal, and General Mood Scales had a statistically significant association with two or more individual aspects of STP. The Stress Management and Adaptability scale scores did not have any statistically significant relationship with total any aspect of STP.
Patil and Kumar (2006), explored the Emotional intelligence among student teachers in relation to sex, faculty and academic achievement. A sample of 302 student teachers studying in four colleges of education in Kolnapur district was selected using simple random sampling. Descriptive survey method was employed. Emotional Intelligence Test (EIT) and academic achievement test were used as research tool in the study. Data were tabulated and analysed using appropriate statistical techniques such as t-ratio and product moment coefficient of correlation. There was no significant difference between emotional intelligence of male and female students teachers. There was no significant difference in the emotional intelligence of students teachers of arts and science faculty. There was no significant relationship between the emotional intelligence and academic achievement of student teachers.

Jaeger and Eagan (2007) explored the role of non-cognitive factors in predicting academic performance. This study utilized an initial sample of 864 first-year students at a large research university. The research addressed the value of EI in predicting academic performance as measured by cumulative grade point average (GPA).

Berenson (2008) examined the intrinsic factors of emotional intelligence (EI) and personality to determine the extent to which they predict Grade Point Average (GPA), a measure of academic success, among students attending community college. Stepwise multiple regression revealed that Emotional Intelligence emerged as the most significant direct predictor of GPA. The addition of personality to EI significantly increased the amount of variance accounted for in GPA. Main
conclusions were that soft skills were pertinent to academic success and might constitute a useful profile of the successful online student that could be applied to marketing, advisement, quality assessment, and retention efforts.

Afolabi, Ogunmwonyi, and Okediji (2009) examined influence of emotional intelligence and need for achievement on interpersonal relations and academic achievement of undergraduates. Questionnaires were administered to one hundred and ten (110) subjects. The independent variables were emotional intelligence and need for achievement, while the dependent variables were interpersonal relations and academic achievement. Independent t-test and analysis of variance were used to analyze the data. Results of hypothesis 1 confirmed that emotional intelligence had a significant influence on interpersonal relations (t = 1.83; df = 108, p less than 0.05). It was also confirmed (hypothesis 2) that emotional intelligence had significant influence on need for achievement among undergraduates (t = 1.51; df = 108, p less than 0.05). Hypothesis 3 was partially supported as emotional intelligence F(1, 106) = 4.61; p, 0.05 and need for achievement F(1, 106) = 5.03 had significant influence on academic achievement. However, the interaction effect of emotional intelligence and need for achievement was not significant( F(1, 106) = 2.15; N.S.).

Qualter, Whiteley, Morley and Dudiak (2009) studied whether Emotional Intelligence mediated withdrawal in a UK Higher Education institution and whether an Emotional Intelligence -based intervention might improve retention rates. Study 1 considered the effects of Emotional Intelligence upon retention, revealing that students with higher levels of Emotional Intelligence were more likely to progress
to Year 2 of study. Study 2 evaluated an Emotional Intelligence -based intervention programme, demonstrating that students who showed an increase in Emotional Intelligence were more likely to persist with their studies.

Alnabhan (2010) examined the association between emotional intelligence (EI) and the Leadership components (L) of high school students in the state of Kuwait. The possibility of predicting each leadership component via emotional intelligence components was investigated for high and low achievers. A sample of 11th grade students from Kuwaiti secondary schools was randomly selected and divided into high and low achieving groups based on their grade point averages. The Bar-On and Barker EI scale and the Arabic version of the Stogdill leadership measure were used. The multiple linear regression results revealed that some EI components can predict leadership for high achievers, where it was not possible to do so with the low achievers.

Ghanizadeh and Moafian (2010) examined the relationship between EFL teachers' emotional quotient (EQ) and their pedagogical success in language institutes. In addition, the role played by their years of teaching experience in their EQ and the relationship between their age and EQ were also studied. For this purpose, 89 EFL teachers were chosen from different language institutes in Mashhad, a city in north-eastern Iran. They were asked to complete Bar-On’s ‘EQ test’. Simultaneously, a questionnaire entitled ‘Characteristics of successful EFL teachers’ was filled in by the students taught by each teacher with the aim of evaluating the teachers' performance. Subsequent data analysis revealed that there is a significant relationship between teachers' success and EQ. Furthermore,
significant correlations were found between teachers' EQ, their teaching experience, and their age.

Grehan, Flanagan and Malgady (2011) explored the relationship of personality traits and Emotional Intelligence (EI) to graduate students' performance in the classroom and the field. Participants were 63 school psychology students who completed measures of EI and Big Five personality traits. These measures were compared with two outcomes that can be indicators of success: Graduate grade point average (GGPA) and supervisor ratings of student performance at internship upon completion of their studies. EI was significantly correlated with GGPA; personality traits were not. The personality trait Conscientiousness and EI were significantly correlated with internship ratings.

MacCann, Fogarty, Zeidner, and Roberts (2011) examined the relationships between performance measures of Emotional Intelligence coping styles, and academic achievement by two studies. In each of these studies, both EI and coping styles were significantly related to academic achievement. In Study 1, 159 community college students completed the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and problem-focused, emotion-focused, and avoidant coping scales. Collectively, the coping variables significantly mediated the relationship between Emotional Intelligence and Grade Point Average (GPA) for Emotion Perception, Emotion Facilitation of Thought and Emotion Management (but not for Emotional Understanding). Problem-focused coping was the only single significant mediator, mediating the relationship between emotion management and GPA (but not other branches and GPA).
2.2.5 Studies done in Academic Achievement and Computer Self Efficacy

2.2.5.1 Indian Studies

A self administered questionnaire was developed to assess the personal competency (EQ) and academic competencies. The sample size was 110. Results were statistically analyzed wherever needed. Mean, percentages and illustrations were sparingly used. The EQ level was good ranging between 23 and 63 which was indicative of 2nd and 1st level EQ with good interpersonal relationship. The competency level was higher than the required level of 3. The competency gap was negligible indicating a higher performance level. The factor analysis pooled three factors with highest priority to teacher-taught issues like traditional notion of teaching followed by gaining computer literacy and updating subject knowledge, and finally the priority to publication, participation in academic events. The constraints were too many. To reap the fullest potential from a teacher good motivation, the conducive work atmosphere, and recognition of potentials was felt necessary by most of the teachers (Sugumar, 2009).

2.2.5.2 Foreign Studies

Van (1996) focused on the efficacy of computer use for learning Kanji characters and improving Japanese vocabulary levels, with reference to software designed to improve Kanji learning in a self-access learning mode. Findings revealed that all the students in an Australian university using the computer to learn Kanji increased their grades and that those most enjoying the experience had the highest increase.
Chou (2000) compared the effects of two training methods--instruction-based and behavior modeling--on learners' computer self-efficacy and performance in World Wide Web home page design. A field experiment was conducted with two classes of 10th grade students. Results indicated that the behavior modeling training method yielded consistently superior performance and higher computer self-efficacy as compared with the instruction-based approach. However, results also showed that gender and learning style played critical roles in training method effectiveness. In terms of performance, results showed male students as benefiting more from the instruction-based approach and female students more from the behavior modeling conditions. For self-efficacy, results showed females gaining more from the instruction and males benefiting more from behavior modeling approaches.

Chou (2001) compared the relative effects of cognitive style and training method on high school students' computer self-efficacy and learning performance. Researcher explained measures used and statistical techniques, and discussed results that suggested gender, cognitive style, training approach, and training objective should be taken into account to assist students taking information technology training classes.

Path analysis of the results of an information technology proficiency examination, computer self-efficacy score, and technology outcome expectation scale for 193 students suggested that academic performance was influenced by computer self-efficacy via the establishment of an academic grade goal. The past
performance variable failed to predict academic performance when affected by outcome expectations (Smith, 2002).

With the continuing debate of the use and impact of technology on young children, Clark (2003) examined the impact on technology on the academic self-efficacy and career intentions of African American students.

This study was designed to identify those learner attributes that might be used to predict student success (in terms of Grade Point Average) in a Web-based distance education setting. Students enrolled in six Web-based, general education distance education courses at a community college were asked to complete the Group Embedded Figures Test for field dependence/independence and the Online Technologies Self-Efficacy Scale to determine their entry-level confidence with necessary computer skills for online learning. Although the students who were more field independent tended to have higher online technologies self-efficacy, they did not receive higher grades than those students who were field dependent and had lower online technologies self-efficacy. Cognitive style scores and online technologies self-efficacy scores were poor predictors of student success in online distance education courses (DeTure, 2004).

Isiksal and Askar (2005) examined the gender differences with respect to computer self-efficacy, mathematics self-efficacy and mathematics achievement. The relationship among these three constructs was also investigated. The study consisted of 64, 7th grade students from three different classes including all the 7th graders in a school, which was located in an upper-middle-class area in Ankara, Turkey. Study participants were aged from 12 to 13. In total, the number of female
and male students was equal. In this study, purposive sampling was used since the school where the study took place was well equipped in terms of computer laboratories and technological devices. The evaluation used an experimental design where two software programs, Excel and Autograph, were used in experimental groups separately, and a control group took traditional-based instruction without using any technological tools such as a computer or calculator. Autograph-based instruction, spreadsheet-based instruction and traditionally based instruction, were randomly assigned to the three classes. The ‘Mathematics achievement’ test was used to assess the students' performance on mathematics. In order to determine the self-efficacy expectation of the students with respect to mathematics and computers, a ‘Mathematics self-efficacy’ scale and ‘Computer self-efficacy’ scale were developed respectively. Analysis of covariance, bivariate correlations and t-test were used to analyze outcome data. Results revealed that the Autograph group and Traditional group had significantly greater mean scores than the Excel group with respect to mathematics achievement. The Autograph group had significantly greater mean scores than the Traditional group, while no significant mean difference was found between the Autograph and Excel groups and between the Excel and Traditional groups with respect to mathematics self-efficacy. Boys had significantly greater mean scores than girls with respect to computer self-efficacy. In addition, significant correlations were found among efficacy scores and achievement. In addition, boys reported significantly higher scores with respect to computer self-efficacy where, during the Autograph-based instruction and spreadsheet-based
instruction, boys were more willing to solve activities using computers compared to girls.

Bell (2007) examined the effects of Self-Regulated Learning (SRL) and Epistemological Beliefs (EB) on individual learner levels of academic achievement in Web-based learning environments while holding constant the effect of computer self-efficacy, reason for taking an online course, prior college academic achievement, and parental level of education. The study constituents included 201 undergraduate students enrolled in a variety of asynchronous Web-based courses at a university in the southeastern United States. Data was collected via a Web-based questionnaire and subjected to the following analyses: separate exploratory factor analyses of the self-regulated learning and the epistemological beliefs question items, correlations between the independent variables and the dependent variable, and linear regression of final course grades with all the variables in the model. Analysis of the data revealed that three independent variables (prior academic achievement (GPA), expectancy for learning, and an interaction term based on the cross product of these two variables were significant predictors in the model of learning achievement in asynchronous online courses.

Kay and Knaack (2008) examined individual differences in the effectiveness of learning objects in secondary school classrooms. Specifically, gender, age, grade, subject area, and computer comfort (self-efficacy) were examined in 850 students. Effectiveness was measured in terms of student attitude (learning, quality, and engagement) and student performance. No gender differences were observed between males and females with respect to student attitudes or performance. Age
was significantly correlated with student attitudes and performance, however correlation coefficients were small. Grade 12 students were more positive about learning objects and performed better than grade 9 and 10 students. Science students had significantly more positive attitudes and performed better than mathematics students. Finally, students who were more comfortable about computers, appreciated learning objects more than their less confident peers, however performance was unaffected.

2.3 Overall Synthesis of Review

In this review a total of 119 studies have been reviewed under five headings viz., Emotional Intelligence, Academic Achievement, Computer Self Efficacy, Emotional Intelligence & Academic Achievement and Academic Achievement & computer Self Efficacy. Under Emotional Intelligence 34 studies have been reviewed. Investigator has reviewed 20 studies under Academic Achievement and 33 studies under Computer Self Efficacy. Under Emotional Intelligence & Academic Achievement 22 studies have been reviewed. Under Academic Achievement & Computer Self Efficacy 10 studies have been reviewed. Many studies have been found between Academic Achievement and Self Efficacy but none has been found between Academic Achievement & Computer Self Efficacy. All most all the studies were carried out with variables viz., Gender, Age, Experience, frequency of Computer Use etc.
2.4 Conclusion

The studies, reviewed so far, focused on Emotional Intelligence, Academic Achievement and Computer Self Efficacy especially among teacher trainees. No study, as far as investigator knows, has been undertaken to study the relationship between Emotional Intelligence, Academic Achievement and Computer Self Efficacy particularly among the teacher trainees. The next chapter deals with methodology followed in the present study.