CHAPTER - 1
CONCEPTUAL FRAMEWORK

1.1 Introduction

Teachers play an important role in development of not only knowledge society but also society having individuals with international understanding. Realizing the importance of the roles of teachers, all most all the nations have put major attention in Teacher Education Curriculum. The nation India has established National Council for Teacher Education (NCTE) to look after its teacher education. NCTE has developed curriculum framework for teacher education by incorporating right from the content & pedagogical knowledge, skills, providing school experiences, values to information technology. It provides a platform for the development of emotionally balanced, technically expert and intellectually competent teacher.

1.2 Education

Education is an act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life. It is a gaining experience, either improving or regressing. Education means to learn in every means in order to reach into a certain goals. Education is very essential in everyday to be able to cope and survive whatever the difficulties and complication may experience. Without education, life can be so hard and frustrating in every aspect. Education will help to
attain a certain ambition or dreams in life and to be successful. Education is a lifelong process. By means of Education individual is cultivated and become cultured.

1.3 Elementary Education

Elementary Education refers to the education imparted to children between the age group of 6 to 14 years. More than sixty years ago the nation India adopted the Universal Declaration of Human Rights asserting that ‘everyone has a right to education’. During the eight five year plan, the target of ‘Universalizing’ elementary education was divided into three broad parameters: Universal Access, Universal Retention, Universal Achievement i.e., making education accessible to children, making sure that they continue education and finally, achieving goals. As a result of education programmes, by the end of 2000, 94% of India’s upper primary schools within one km and 84% had upper primary schools within 3 km. Special efforts were made to enroll SC/ST and girls. The enrollment in primary and upper-primary schools has gone up considerably since the first five-year plan. In 1950-51, only 3.1 million students had enrolled for primary education. In 1997-98, this figure was 39.5 million. The number of primary and upper-primary schools was 0.223 million in 1950-51. This figure was 0.775 million in 1996-97.

In 2002-2003, an estimated 82% of children in the age group of 6-14 were enrolled in school. The Government of India aims to increase this to 100% by the end of the decade. To achieve this Government launched Sarva Shiksha Abhiyan (SSA). It aimed at achieving universal elementary education of satisfactory quality by 2010. The introduction of SSA has made a tremendous growth of enrolment in
elementary education and also tried to assure quality in education to some extent. The Parliament of India has recently passed Right to Education Act through which education has become fundamental right of all children of age group 6-14 year.

1.4 Teacher Education

In order to strengthen education in India it is also essential to provide proper training to the teachers entrusted with the duty of educating the students. There are quite a number of institutes that conduct Elementary Teacher Education (ETE) and secondary Teacher education in India. To maintain standards in Teacher Education, Government of India has established National Council for Teacher Education (NCTE) which periodically reviews and revises the norms and standards to the changing world and local situations.

1.5 Elementary Teacher Education (ETE) in India

Elementary level education lays the foundation of learning in a child. It is, thus, very important that teachers acquire proper training in order to handle children at the elementary level. The course includes all the major aspects of the field of study. Apart from the theory part, teachers also go through practical training courses. However, candidates willing to pursue an elementary teacher education course in India need to fulfill the admission criteria as mentioned by the respective institutes. Candidates who have qualified their 10+2 examination or equivalent from a recognized board with the minimum percentage of marks are eligible for admission to this course. The growing need for trained teachers for the proper functioning of the schools have compelled private institutions to start various
courses in elementary teacher education in India. The course includes both theory and practice through internship. The teacher education curriculum focuses on developing emotionally matured, competent and committed teachers. It also gives proper attention to the Information and Communication Technology (ICT).

1.6 Academic Achievement

The principal duty of a teacher is to create permanent traced behaviour changes on the students in the direction of the objectives of the school and the course (Erol Karaca, 2008). Performing this duty requires both necessary subject field knowledge and teaching profession knowledge to obtain environment arrangement for forming valid learning life styles (Erden, 1995). Teaching profession knowledge is known as profession formation has the knowledge, skills and behaviours required for teaching profession acquired. As indicated by Kucukahmet (1998), today, slogan of ‘knowing teaches’ is not effective. It is necessary that the knowing how to teach their acquirements in a methodical way. Thus, it is required to have teaching profession knowledge by the individual to become a teacher. The most effective way of teacher trainees to gain professional qualifications is preparing education programs considering the qualifications needed to be gained by the teachers (Gorgen and Deniz, 2003). Moreover, it is essentially important to provide the teacher trainees to gain teaching profession knowledge as well as subject field knowledge during pre-service education (Bursalolu, 1981).

1.7 Emotional Intelligence

‘Emotional intelligence’ has become a major topic of interest in scientific circles as well as in the lay public since the publication of a bestseller by the same
name in 1995 (Goleman). Despite this heightened level of interest in this new idea over the past decade, scholars have been studying this construct for the greater part of the twentieth century; and the historical roots of this wider area can actually be traced back to the nineteenth Publications began appearing in the twentieth century with the work of Edward Thorndike on social intelligence in 1920. Many of these early studies focused on describing, defining and assessing socially competent behavior (Chapin, 1942; Doll, 1935; Moss & Hunt, 1927; Moss, Hunt, Omwake and Ronning, 1927; Thorndike, 1920). Edgar Doll published the first instrument designed to measure socially intelligent behavior in young children (1935). Possibly influenced by Thorndike and Doll, David Wechsler included two subscales (‘Comprehension’ and ‘Picture Arrangement’) in his well-known test of cognitive intelligence that appear to have been designed to measure aspects of social intelligence. A year after the first publication of this test in 1939, Wechsler described the influence of non-intellective factors on intelligent behavior which was yet another reference to this constructs (1940). In the first of a number of publications following this early description moreover, he argued that our models of intelligence would not be complete until we can adequately describe these factors (1943). Scholars began to shift their attention from describing and assessing social intelligence to understanding the purpose of interpersonal behavior and the role it plays in effective adaptability (Zirkel, 2000). This line of research helped define human effectiveness from the social perspective as well as strengthened one very important aspect of Wechsler’s definition of general intelligence: ‘The capacity of
the individual to act purposefully’ (1958, p. 7). Additionally, this helped position of social intelligence as part of general intelligence.

Thorndike (1920) defined social intelligence as ‘the ability to understand and manage men and women, boys and girls to act wisely in human relations’. It can be described as a model of personality and individual behaviour in which people are presumed to be knowledgeable about themselves and the social world in which they live. Individuals actively use this knowledge to manage their emotions and direct their behaviour toward desired outcomes. Since then, scientists, educators, and philosophers have worked to prove or disprove the importance of feelings.

Gardner (1983) advanced Thorndike’s ideas of social intelligence by proposing Multiple Intelligence Theory including interpersonal and intra-personal intelligences. He presented seven types of intelligence, namely: verbal, musical, logical, spatial, kinesthetic, interpersonal, and intra personal. Afterwards, he added naturalist and existential dimensions. He described interpersonal intelligence as the ability to understand other people, what motivates them, how they work, and how to work cooperatively. Intrapersonal intelligence is the ability to develop an accurate model of the self and use it effectively to operate throughout life. Moreover, he described these skills as necessary for social interaction and the understanding of one’s own emotions and behaviours.

Later on Sternberg (1988) also carried out the concept of social intelligence in the name of contextual intelligence through his Triarchic Theory of Intelligence. This component of one’s intelligence (other components being componential and experiential) relates with one’s capacity of making adjustment to various contexts.
with a proper selection of contexts so that one can improve one’s environment in a proper way. As a follow up study, it was later on discovered that without having a high IQ (Intelligence Quotient) one can have high contextual intelligence i.e. the ability to lead one’s life successfully. The importance of ‘emotional factors’ was also recognized by David Wechsler (1940) who urged that the ‘non-intellective aspects of general intelligence’ be included in any IQ measurement.

In 1948, Leeper promoted the idea of ‘emotional thought’ which he believed contributed to logical thought. Historically speaking, the term ‘emotional intelligence’ was first coined by Salovey and Mayer (1990). They reconceptualised inter- and intra- personal intelligences (Gardner, 1983) under a broader label of Emotional Intelligence and proposed a more comprehensive framework on Emotional Intelligence in 1990. However, in 1995, Emotional Intelligence went through a phase of popularization by Goleman’s (1995) work on ‘Emotional Intelligence’. He made a provocative claim that if IQ contributed up to 20% to life’s success, the remaining was fulfilled through one’s emotional intelligence and as a result predicted ‘Emotional intelligence would contribute to the success at home, at school, and at work’. He emphatically said, ‘Emotional intelligence helps in knowing one’s emotions, managing emotions, motivating one’s self, recognizing emotions in others and handling relationships’.

Later Bar-On (1997) broadened the conceptual framework of Emotional intelligence by incorporating various personality characteristics such as empathy, motivation, persistence, social skills, and warmth. Actually, he contributed the phrase ‘Emotional Quotient’ (EQ).
1.7.1 Definition of Emotional Intelligence

Emotional Intelligence is the set of abilities for how the people’s emotional reports vary in their accuracy and how the more accurate understanding of emotion leads to better problem solving in individuals’ emotional life. More formally, it is defined as the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion and regulate emotion in the self and others (Mayer and Salovey, 1997). After publishing numerous articles, Mayer and Salovey have evolved the following definition of emotional intelligence: ‘It is the ability to perceive emotions and emotional knowledge and to reflectively regulate emotions so as to promote emotional and intellectual growth’.

According to Gloeman (1998), ‘Emotional Intelligence refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships’. He redefines it by adding some more attributes like self-awareness, impulse control and delaying gratification, and handling stress and anxiety. He further elaborates the concept by saying that ‘there is an old-fashioned word for the body of skills that emotional intelligence represents: ‘character’.

Bar-On (1997) characterized emotional intelligence as ‘an array of non-cognitive capabilities, competencies and skills that influence one’s ability to succeed in coping with environmental demands and pressures’. The ability definition of emotional intelligence, as proposed by Mayer and Salovey, has its own set of competing constructs and concepts. One of the most closely related concepts,
emotional competence, as defined by Saarni(2000) is: Emotional Competence is the demonstration of self efficacy in emotion- eliciting social transactions.

To conclude, the various definitions, discussed above, on emotional intelligence have led to the development of different models of emotional intelligence.

1.7.2 Models of Emotional Intelligence

Currently several comprehensive models of Emotional Intelligence provide alternative theoretical frameworks for conceptualizing the construct. These models do not contradict one another but they do take somewhat different perspectives on the nature of emotional intelligence. These models are broadly classified as Ability Models and Mixed Models. Models that propose a pure ability definition of emotional intelligence are considered as Ability Models. Models that incorporate aspects of both the original definition of emotional intelligence and attributes of personality are classified as Mixed Models of Emotional Intelligence.

1.7.2.1 Ability Models of Emotional Intelligence

Earlier work of Salovey and Mayer (1990) defines emotional intelligence as ‘the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and action’. They initially postulated that emotional intelligence consists of the three categories of adaptive abilities: appraisal and expression of emotion, regulation of emotions and utilisation of emotions in solving problems. The first category consists of the components of appraisal and expression of emotion in the self and the appraisal of emotion in others. The component of appraisal and expression of emotion in the self
is further divided into the sub components of non-verbal perception and empathy. The second category of emotional intelligence, regulation, has the components of regulation of emotions in the self and regulation of emotions in others. The third category, utilization of emotion, includes the components of flexible planning, creative thinking, redirected attention and motivation. Even though emotions are at the core of this model, it also encompasses social and cognitive functions related to the expression, regulation and utilization of emotions. This model talks only about perceiving and regulating emotion and omit thinking about feelings.

Mayer and Salovey (1997) revised the model of emotional intelligence to address these problems. The revised model gives more emphasis to the cognitive components of emotional intelligence and conceptualizes emotional intelligence in terms of potential for intellectual and emotional growth. It consists of four branches of emotional intelligence as follows:

a) **Perception, Appraisal and Expression of Emotion**: This branch concerns the accuracy with which individuals can identify emotions and emotional content.

b) **Emotional Facilitation of Thinking**: This branch concerns emotion acting on intelligence; it describes emotional events that assist intellectual processing.

c) **Understanding and Analysing Emotions; Employing knowledge**: This branch concerns the ability to understand emotions and to use emotional knowledge.

d) **Reflective Regulation of Emotions to promote Emotional and Intellectual Growth**: This branch concerns the conscious regulation of emotions to enhance emotional and intellectual growth.
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The perception, appraisal and expression of emotion are viewed as the most basic processes while the reflective regulation of emotion requires the most complex processing. Further, each branch has associated with its stages or levels of abilities, which individuals master in sequential order.

1.7.2.2 Mixed Models of Emotional Intelligence

Mixed models of Emotional intelligence are substantially different from the mental ability models. These models blend emotional intelligence with other skills and characteristics such as well being, motivation, and capacities to engage in relationships.

Goleman’s Model of Emotional Intelligence

Goleman’s (1995) treatment of emotional intelligence expanded the construct to include a number of specific social and communication skills influenced by the understanding and expression of emotions. The major areas of skills of emotional intelligence are as follows:

a) Knowing one’s emotions
   - Recognising a feeling as it happens
   - Monitoring feelings from moment to moment

b) Management of Emotions
   - Handling feelings so that they are appropriate.

c) Motivating oneself
   - Marshalling emotions in the service of a goal.
d) **Recognising emotions in others**
   - Empathic awareness
   - Attunement to what others need.

e) **Handling relationships**
   - Skills in managing emotions in others
   - Interacting smoothly with others

**Bar-On’s Model of Emotional Intelligence**

Bar-On (1997) reviewed the psychological literature for personality characteristics that appeared related to life success and identified the following five areas with specific skills functioning relevant to success:

a) **Intra-personal skills**
   - Emotional self –awareness
   - Assertiveness
   - Self- regard
   - Self-Actualisation
   - Independence

b) **Inter-personal skills**
   - Interpersonal relationships
   - Social responsibility
   - Empathy

c) **Adaptability Skills**
   - Problem solving
   - Reality testing
   - Flexibility
d) **Stress management skills**
   - Stress tolerance
   - Impulse control

e) **General mood**
   - Happiness
   - Optimism

Bar-On’s theoretical work combines what may qualify as mental activities e.g. Emotional self awareness with other characteristics that are considered separable from mental ability, such as personal independence, self–regard, and mood; this makes it a mixed model. Despite the breadth of his model, Bar-On is relatively cautious in his claims for his model of emotional intelligence. Although his model predicts success, this success is ‘the end-product of that which one strives to achieve and accomplish… Moreover, his Emotional Quotient Inventory (EQ-i) relates to the potential to succeed rather success itself’. At a broader level, he believes that Emotional Quotient (EQ), along with Intelligence Quotient (IQ), can provide a more balanced picture of a person’s general intelligence (Mayer, Salovey, Caruso, 2000).

Critics of Emotional Intelligence claim that it is a type of personality miscast as intelligence. Still others would argue that EI, if it were to be taken as a form of intelligence, would be subsumed by general intelligence (Graves, 2000). However, as it can easily be seen, the concept of EQ is a broad umbrella term that refers to interpersonal and intrapersonal skills, being aware of emotions and using emotional and social activities. Most of the authors on this topic note that in order to function fully as a member of society, one has to possess both IQ and EQ (Gardner, 1983;
Goleman, 1995; Salovey and Mayer, 1990). Moreover, it is EQ that might be as important as IQ for people to succeed in life. However, the models of EI appear to contain a mixture of different types of Emotional Intelligence. Although each taxonomy differs in composition, emotional and social skills and empathy seem to be the skills that appear in most models.

1.8 Self Efficacy

Self-efficacy is an important psychological construct in understanding the reason people choose to pursue particular activities and the extent of effort they devote to these. Self-efficacy is a result or outcome of the belief that one has the confidence and the ability to execute the courses of actions required to deal with a given situation in which they are trained.

Bandura’s (1997) construct of self-efficacy has been widely used in research on human motivation and goal attainment. He defined self-efficacy as ‘beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments’ (p. 3).

1.8.1 Sources of Efficacy Beliefs

According to Bandura (1997), there are four main sources of information upon which individuals base their self-efficacy beliefs: enactive mastery experiences, vicarious experiences, verbal persuasions, and physiological states.

1.8.1.1 Enactive Mastery Experiences

The most influential source of information comes from mastery experiences because they provide the most realistic information to learners' on their ability to do
whatever it takes to succeed. As learners master skills, they tend to raise the expectation that they will be able to master those skills further. Success tends to raise self-efficacy, whereas failure tends to lower it (Bandura, 1997).

1.8.1.2 Vicarious experiences

Efficacy beliefs are also influenced by vicarious experiences mediated through modeled attainments. Thus, modeling serves another tool for promoting self-efficacy. The more closely the observer identifies with the model, the stronger will be the impact on efficacy. Observing others perform tasks successfully raises expectations of personal success on the same task (Bandura, 1997).

1.8.1.3 Verbal persuasions

The third means of modifying self-efficacy is verbal persuasions. This refers to ‘others persuading a learner that he or she is capable of succeeding at a particular task’ (Driscoll, 2000). Bandura (1997) considers verbal persuasion as a weak method of altering efficacy beliefs. While verbal persuasion may be capable of influencing the learner to perform certain tasks, it tends to be disregarded by the learner if it is not verified to be successful.

1.8.1.4 Physiological states

Finally, emotional arousal serves as an indicator to the learner. For example, learners can stop performing the task because they tend to associate emotional arousal such as anxiety or fear as signs of personal incapability (Bandura, 1997).
1.8.1.5 Integration of efficacy information

Efficacy beliefs are developed by cognitively processing diverse sources of information. That is, learners weight and integrate multidimensional information while making their efficacy judgments. In this weighting process, the value of each source of information and how to combine those sources change for each individual and for different situations (Bandura, 1997).

Bandura’s (1986, 1997, 1999, and 2001) studies have shown that self-efficacy is influenced by the social cognitive theory of behavior. This states that environmental situations, cognitive and personal factors, and demographic characteristics can influence an individual’s behavior. He also stated that self-efficacy has a role in motivating the behavior of an individual. He further mentioned that individuals who are easily discouraged will fail; whereas, confident individuals who fall short of their goal will increase their efforts and persevere, resulting in attaining the goal.

1.8.2 Teachers' Sense of Efficacy

Ashton and Webb (1986) have expanded the Rand methodology by using Bandura's social cognitive learning theory, in which he made distinction between ‘outcome expectations’ and ‘efficacy expectations’. Bandura (1997) defined the outcome expectation as ‘a judgment of the likely consequence such performances will occur,’ and the efficacy expectation as the ‘conviction that one can successfully execute the behaviour required to produce the outcome’. Ashton and Webb (1986) stated that outcome expectations reflect perceptions of the consequences of teaching in general. This dimension was labeled as ‘teaching efficacy,’ and they believed that
it was assessed in the first Rand item. In contrast, efficacy expectations reflect teachers' perceptions of their personal ability to bring about desired outcomes. They labeled this dimension as ‘Personal Teaching Efficacy,’ and assumed to be measured by the second Rand item.

Woolfolk and Hoy (1990) emphasizes that there is a discrepancy between Bandura's conceptualization and the Ashton and Webb model of teacher efficacy. They observe that teaching efficacy is not an outcome expectation, but an efficacy expectation. They used the 16-item version of Gibson and Dembo (1984) added four items that refer to a teacher preparation program, and also included two items of the Rand study. Woolfolk and Hoy interpreted their results as having three factors, one for teaching efficacy and two for personal efficacy. The two personal factors reflect teacher's sense of personal responsibility for positive student outcomes and responsibility for negative outcomes. Although the Gibson and Dembo instrument has been widely used or adapted, there are still both conceptual and statistical problems (Tschannen-Moran, Woolfolk and Hoy, 1998).

Tschannen-Moran, Woolfolk and Hoy(1998) defined teacher efficacy as ‘teacher's belief in his or her own capability to organize and execute courses of action required to successfully accomplishing a specific teaching task in a particular context’. They developed new items concerning classroom management by taking Emmer's teacher efficacy for classroom management scale into consideration. The resultant instrument included 36 items.

**Efficacy for Instructional Strategies**

- To what extent can you use a variety of assessment strategies?
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**Efficacy for Classroom Management**

- How much can you do to control disruptive behaviour in the classroom?

**Efficacy for Student Engagement**

- How much can you do to get students to believe they can do well in schoolwork?

Individuals’ self-efficacy expectancies can vary with the task due to the magnitude, generality, and difficulty of the task to be accomplished. The magnitude of the task may be beyond the limits of the individual, thus causing anxiety. Some tasks require a minor mastery, causing an individual to falsely believe successes can come easily. This false belief causes individuals to become discouraged by failure when attempting a task they think is easy when in reality it is difficult. Setbacks in difficult efforts serve a useful purpose in teaching how to succeed by requiring sustained effort. Convincing individuals that they can succeed by persevering in the face of adversity enables them to rebound from setbacks. Perceived self-efficacy has been shown to predict effective use of analytic strategies in managerial decision making (Wood, Bandura and Bailey, 1990).

Vincent de Paul (2008) argued that in Indian set up the self efficacy is ‘teacher's belief in his or her own capability to organize and execute courses of action required to successfully accomplishing a specific teaching task as well as specific school tasks in a particular context viz., Community Environment, School Environment, Classroom Environment, Problem Solving, Linkage, Role Model and Coping with the situation.
1.9 Computer Self Efficacy

Adapted from the self-efficacy concept, computer self-efficacy is the extent of an individual’s perceived ability to use a computer. Delcourt and Kinzie (1993) defined computer self-efficacy as a measure of how confident computer users are with their ability to understand, use, and apply computer knowledge and skills. The authors found that individuals who have high computer self-efficacy will feel competent in using different computer hardware and software. However, a low computer self-efficacy leads to the belief that individuals will encounter difficulty in using computers hardware and software.

Ertmer, Addison, Lane, Ross and Woods (1999) suggested that educators with higher computer self-efficacy are likely to be more enthusiastic to use technology in their classrooms than those with lower levels of self-efficacy. They concluded that educators’ personal beliefs with regard to their computer proficiency are the main factors in determining whether or not they will use computers in teaching and learning. The researchers also noted that many newly graduated teachers are more proficient at using computers than their more experienced colleagues. These skills, however, often could not be used because routine teaching obligations often hindered their efforts. Furthermore, a study by Czaja et al. (2006) among 1,204 adults (men = 454, female =750) ranging in age from 18 to 91 years found that computer self-efficacy was an important predictor of general use of technology and that people with lower self-efficacy are less likely to use technology in general.
1.9.1 Measuring Computer Self-Efficacy

Many instruments have been developed to measure computer self-efficacy. There are measurement tools developed by Hill, Smith, and Mann (1987), Murphy, Coover, and Owen (1989), Delcourt and Kinzie (1993), Busch (1995), Compeau and Higgins (1995), and Durndell, Haag, and Laithwaite (2000). Several computer self-efficacy measures were found in the literature, but no single measure is universally accepted.

The first computer self-efficacy scale was introduced by Murphy, Coover and Owen (1989) with 32 items to measure an individual’s perceptions of his capability regarding specific computer related knowledge and skills. The instrument was administered to 414 individuals that included graduate students, adult vocational students, and professional nurses learning to use computers. The authors used the 5 point Likert-type format (1 = very little confidence to 5 = quite a lot of confidence), and participating respondents were asked to indicate the degree to which they felt. The authors performed factor analysis with an oblique rotation which produced three factors concerning computer skills (a) beginning level, (b) conceptual (advanced), and (c) mainframe. The reported Cronbach’s alpha for the three empirically derived factors was 0.97, 0.96, and 0.92, respectively.

Harrison and Rainer (1992) replicated the factor structure found by Murphy, Coover and Owen (1989) in their study to measure respondent perceptions regarding specific computer-related knowledge and skills. The instrument was administered to 693 university personnel who fully completed the survey. The participant group derived from four broad university job categories: (a) clerical, (b)
technical, (c) faculty, and (d) administrative. The Cronbach’s alpha coefficients for the three subscales on the computer self-efficacy skill scale were 0.97 on the beginning, 0.95 on the advanced, and 0.98 on the mainframe.

Torkzadeh and Koufteros (1994) used the 32 item scale with slight modification from Harrison and Rainer (1992). The authors removed two items from the original scale and opted to alter a Likert scale (1 = strongly disagree to 5 = strongly agree). The items removed were (a) using the computer to analyze number data, and (b) learning advanced skills within a specific program (software). The authors administered the instrument to 224 business undergraduates at a large state university in the Midwest of the United States at the beginning and at the end of an introductory computer course. The authors examined factorial validity of this instrument with an oblique rotation and recommended a four-factor skill solution which was identified as (a) beginning, (b) mainframe, (c) advanced, and (d) file and software. The authors reported reliability for each factor as 0.94, 0.96, 0.90 and 0.91 respectively.

Compeau and Higgins (1995) developed and tested a measure of computer self-efficacy, using a survey in an effort to understand the impact of self-efficacy on individual reactions to computer technology in business and industry. Bandura’s (1997) social cognitive theory was employed to create a model for testing the effects of computer self-efficacy. The researchers’ 10 item computer self-efficacy measure was designed to be task focused and to incorporate elements of task difficulty including computer use, anxiety, affect, outcome expectations, and organizational support, as well as encouragement by others. This survey was
administered to 1,020 managers and professionals including insurance adjusters, financial analysts, researchers, consultants, and accountants. Their research concluded that computer self-efficacy influences individuals’ use of the computer and learning to use computers, and empirically verified a strong link between self-efficacy and individual reactions to computing technology. They also found that computer self-efficacy exerted significant influence on (a) individuals’ expectations of the outcomes of using computers, (b) emotional reactions to computers, and (c) their actual computer use. In this research, the authors discovered that individuals with high self-efficacy used more computers, enjoyed using them, and experienced less computer-related anxiety.

Durndell and Haagb (2002) adopted a computer self-efficacy instrument that had been modified by Torkzadeh and Koufteros (1994) and made further changes to it in their study. The researchers removed all three statements that were related to mainframe as they reasoned that technology through the emphasis on standalone machines has rendered these skills obsolete for most persons. The authors later added back the two statements that were originally used by Murphy, Coover and Owen (1989) (a) using the computer to analyze number data, and (b) learning advanced skills within specific program (software). This instrument was translated into the Romanian language and was administered to 200 students at a university in Romania at the end of the participants first academic year. A year later, the English version of Durndell and Haagb scale was administered to students in a university in Scotland under the same conditions and time of the academic year. A total of 148 students (male = 43, female = 105) participated in the study. In Scotland, the
reported Cronbach’s alpha coefficient was 0.96 and in Romania was 0.95. These alpha coefficients indicated that the instrument used was reliable.

There are many notable instruments used to measure computer self-efficacy. Lee and Bobko (1994) found that asking the respondents to rate their self-efficacy strengths and weaknesses were the most common measures of self-efficacy. Karsten and Roth (1998) recommended that researchers select the computer self-efficacy instrument whose items most closely reflect the skills they wish to measure and that the skills be clearly identified.

1.10 Academic Achievement, Emotional Intelligence and Computer Self Efficacy

Elementary level education lays the foundation of learning in a child. Berenson (2008) argues that soft skills are pertinent to academic success. Goleman (1995) claimed that Emotional Intelligence can predict success at home, at work, and at school, as well as or better than IQ. Swart (1996) found significant differences in total scores on the EQ-i (Bar-On, 1997) between academically successful and unsuccessful university students, using 1st year grades as the criterion. Bar-On (1997) found significant differences in self-reported success in the 1st year of military academy between successful, average, and unsuccessful students on all 15 of the EQ-i subscales. Schutte et al. (1998) suggests that Emotional Intelligence can predict approximately 10% of the variance in academic success. Barchard (2003) argued that Emotional Intelligence is associated with academic success but not to the same extent as and certainly not to a greater extent than verbal ability. Teaching emotional intelligence skills in schools is very important because
it can positively affect academic achievement not only during the session they are taught, but in subsequent years as well (Elias, Brune, Butler, Blum dd Schumier, 1991).

Self-efficacy is a strong and consistent predictor of grade point average and expectations of academic success. Self-efficacy which refers to a person's judgment of own capabilities to organize and execute courses of action required to attain designated type of performance has also been found to be a major contributor to an individual's academic achievement (Bandura, 1986). Self-efficacy which refers to a person's judgment of own capabilities to organize and execute courses of action required to attain designated type of performance has also been found to be a major contributor to an individual's academic achievement (Bandura, 1986). From the studies of Pajares, (1996); Pajares and Miller, (1997); Pajares and Valliant, (1997), Covington, (2000), Robins and Bear, (2001) it can be concluded that self efficacy plays a critical role in educational achievement. Schrand (2008) suggests the use of technology in education has several benefits for motivating students. Schrand further states that technology can facilitate more active student learning in the classroom, and appeal to multiple intelligences, and different learning styles.

In view of the importance of these concepts (Emotional intelligence and Computer Self efficacy) to an individual's academic achievement further as well as availability of only few empirical research studies on these variables this study focused investigation among the Academic Achievement, Emotional Intelligence and Computer Self Efficacy of Elementary Education Teacher Trainees.
1.11 Need for the Study

Elementary level education plays a crucial role in the foundation of learning in a child. Each and every activity organized by the teacher in the classroom has impact on the achievement of the child in the subject matters. Teacher with optimal emotional intelligence will defiantly humanistic in their approach in designing the learning activities. In the modern information and communication technological world the technological inputs provided by the child also has an impact in the achievement of the child. The review of related literature reveals only a few studies have been attempted in finding the relationship among the Academic Achievement, Emotional Intelligence and Computer Self Efficacy. Hence the present study entitled ‘Emotional Intelligence of DTEd Trainees of Pudukkottai District in relation to their Academic Achievement and Computer Self Efficacy’ was carried out.

1.12 Scope of the Study

The present study will throw light on teacher trainees ‘Emotional Intelligence and their relationship with their Academic Achievement and Computer (Self) Efficacy’. This study will help the policy makers to know the status of teacher characteristics and develop strategies to improve them.

1.13 Statement of the Problem

The investment in Primary Education helps the students to develop good character and sound knowledge about health and mind. It also helps them to be economically sound. These are achievable only when quality exists in schools. Each and every nation is developing many programmes and strategies to develop and
sustain quality in school education. This is possible when quality is maintained in
teacher education. Teachers play a vital role in redesigning the society through the
development of child given to them in schools. Realizing the importance of Teacher
Education, the policy makers of India has established an apex body of teacher education viz, National Council for Teacher Education to maintain the standards in
teacher education by rules and developing sound academic curriculum. Based on
the national curriculum the state apex body for elementary teacher education viz,
State Council of Educational Research and Training (SCERT) in general and
Directorate of Teacher Education Research and Training (DTERT), in Tamilnadu
revised the curriculum in the light of National Curriculum Framework for Teacher
Education (2005).

Teachers’ academic knowledge is no doubt essential to do the teaching
activity and school related activity. In addition to that they are in need of Emotional
Intelligence. Emotionally balanced teacher alone can develop a democratic value
citizen. The curriculum developed by the policy makers well provides the platform
to develop emotional intelligence among the prospective teachers.

Technology has entered in all walks of life. Education also utilizes the
technology for providing learning experiences to the learners. The present
information era, teachers should know the ways of integrating technology into the
teaching learning process for maintaining quality in education.

In India for quality aspects of school education, many organizations like
National University for Educational Planning & Administration (NUEPA), National
Council of Educational Research & Training (NCERT), Regional Institutes of
Education (RIEs), State Councils of Educational Research & Training (SCERTs) / Directorate of Teacher Education, Research & Training (DTERT), District Institutes of Education & Training (DIETs), Block Resource Centres (BRCs) and Cluster Resource Centres (CRCs) have been established. They develop many training modules and impart training to teachers in order to strengthen quality in general all levels of education and in particular at primary education. But the real outcome depends on teachers' Academic Achievement in teacher education programmes, Emotional Intelligence and Computer Self Efficacy.

In this regard the following research questions are to be explored. Are factors of Emotional Intelligence and Computer Self Efficacy related to Academic Achievement in teacher education programmes among teacher trainees? If so what extent? Hence the problem of the present study is stated as Emotional Intelligence among Teacher Trainees with respect to their Academic Achievement in teacher education programmes and Computer Self Efficacy.

1.14 Operational Definition of the Key terms

1.14.1 Emotional Intelligence

Emotional Intelligence is defined as, in the words of Bar-On, ‘an array of non-cognitive capabilities, competencies and skills that influence one’s ability to succeed in coping with environmental demands and pressures’.

1.14.2 Academic Achievement

It refers to the test scores scored by the DTEd Trainees in public examination conducted by the Directorate of Government Examination after undergoing two years Diploma Course.
1.14.3 **Computer Self Efficacy**

It is defined as ‘a judgment of one’s capability to use a computer for personal and teaching purposes.

1.14.4 **DTEd Trainees**

Those who are undergoing Diploma in Teacher Education Course in District Institute of Education & Training and Elementary Teacher Training Institutes located in the Jurisdiction of Pudukkottai District.

1.14.5 **Pudukkottai District**

It is one of the revenue Districts of the State Tamil Nadu.

1.15 **Objectives of the Present Study**

The objectives of the present study are:

✧ To develop and validate Teacher Computer Self Efficacy Scale.

✧ To study the relationship between Emotional Intelligence and Academic Achievement, Emotional Intelligence and Computer Self Efficacy among the DTEd Trainees of Pudukkottai District.

✧ To find out the relationship if any between Emotional Intelligence & Academic Achievement and Emotional Intelligence & Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

✧ To find out the relationship if any between Emotional Intelligence & Academic Achievement and Emotional Intelligence & Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.
Conceptual Framework

- To find out the relationship if any between Emotional Intelligence & Academic Achievement and Emotional Intelligence & Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Social variables.
- To find out the relationship if any between Emotional Intelligence & Academic Achievement and Emotional Intelligence & Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.
- To investigate the significance of difference if any in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.
- To investigate the significance of difference if any in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.
- To investigate the significance of difference if any in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to Social variables.
- To investigate the significance of difference if any in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to Economic variables.
- To investigate the significance of difference if any in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.
To investigate the significance of difference if any in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

To investigate the significance of difference if any in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

To investigate the significance of difference if any in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.

To investigate the significance of difference if any in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

To investigate the significance of difference if any in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

To investigate the significance of difference if any in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to Social variables.

To investigate the significance of difference if any in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to Economic variables.
1.16 Hypothesis of the Present Study

1.16.1 Correlation Study

✧ The Emotional Intelligence is not significantly related to Academic Achievement and Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

✧ The Emotional Intelligence is not significantly related to Academic Achievement and Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

✧ The Emotional Intelligence is not significantly related to Academic Achievement and Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

✧ The Emotional Intelligence is not significantly related to Academic Achievement and Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.

1.16.2 Multiple Correlation Study

Multiple regression equation was framed for this study with Emotional Intelligence as criterion variable and Academic Achievement and Computer Self Efficacy as predictor variables.

✧ There is no significant relationship between Emotional Intelligence on one side and Academic Achievement and Computer Self Efficacy as combined whole on other side among the DTEd Trainees (All categories) of Pudukkottai District.

✧ There is no significant relationship between Emotional Intelligence on one side and Academic Achievement and Computer Self Efficacy as combined whole on
other side among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

✧ There is no significant relationship between Emotional Intelligence on one side and Academic Achievement and Computer Self Efficacy as combined whole on other side among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

✧ There is no significant relationship between Emotional Intelligence on one side and Academic Achievement and Computer Self Efficacy as combined whole on other side among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

✧ There is no significant relationship between Emotional Intelligence on one side and Academic Achievement and Computer Self Efficacy as combined whole on other side among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.

1.16.3 Differential Study

✧ There is no significant difference in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

✧ There is no significant difference in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

✧ There is no significant difference in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

✧ There is no significant difference in Emotional Intelligence among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.
There is no significant difference in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

There is no significant difference in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

There is no significant difference in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

There is no significant difference in Academic Achievement among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.

There is no significant difference in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Institutional variables.

There is no significant difference in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Biological variables.

There is no significant difference in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Social variables.

There is no significant difference in Computer Self Efficacy among the DTEd Trainees of Pudukkottai District with respect to their Economic variables.

1.17 Methodology

Survey method was followed in this study. This study had six stages. In the first stage Teacher Computer Self Efficacy tool was developed and validated. In the second stage pilot study was conducted with 50 teacher trainees. In the third stage the tools viz., Teacher Computer Self Efficacy Scale and Emotional Quotient Inventory were administered to the randomly selected teacher trainees of Pudukkottai district. In the fourth stage the academic achievement data was...
collected from the secondary source viz the records of the institution. In the fifth stage the data were analyzed. The sixth stage was the documentation of the results of the study.

1.17.1 Sample

The tools were distributed to 425 teacher trainees of Pudukkottai District who were selected randomly. These trainees were from District Institute of Education & Training and Private Teacher Training Institutes of Pudukkottai district. Among them 407 trainees responded completely. Hence the sample for the present study was 407. Then the sample was further divided into various categories with respect to Institutional variables, Biological Variables, Social Valuables and Economic Variables Viz., Type of Admission (Single Window System, Management Quota), Type of Administration (DIET, TTI), Type of Staying (Hosteller, Days Scholar), Plus two school - Type of Management (Government, Government Aided, Government Unaided), Plus two school - Type of School (Boys, Girls, Co-Educational, Gender (Male, Female), Age (Equal and above 21 years, Below 21 years), Community (FC, BC, MBC, SC and ST), Type of Family (Single, Joint Family), Father as Government Servant (Yes, No), and Mother as Government Servant (Yes, No) There were two predictor variables namely Academic Achievement and Computer Self Efficacy.

1.17.2 Tools for the study

The following tools were used in the present study:

- Teachers Computer Self Efficacy Scale (TCSES) - Developed by the investigator, S.Thangarasu, Dr.S.Vincent De Paul and Dr.T.K.Swatantara Devi.
Chapter 1

Conceptual Framework

- Emotional Quotient Inventory (EQI) developed by Reuven Bar-On and translated in Tamil by Dr R. Alavandar.
- First Year result records of the institution concerned.

1.17.3 Statistical Technique

In the present study mean, standard deviation, test of significance, analysis of variance, simple correlation and multiple correlations were used to analyze the data.

1.18 Limitation of the Study

- This study was limited to the teacher trainees of elementary teacher educational institutions of Pudukkottai District only.
- The Emotional Intelligence was studied with respect to Academic Achievement, Teacher Computer (Self) Efficacy only.
- Certain variables viz., Locale, Gender, Age, were alone considered in the present study.

1.19 Organization of thesis

The Chapters are organized in the following order:

Chapter 1: Conceptual Frame Work of the study
Chapter 2: Review of Related Literature
Chapter 3: Research Design
Chapter 4: Analysis and Interpretation of Data
Chapter 5: Summary, Findings, Discussion and Recommendations

Bibliography and Appendix follow the fifth chapter
1.20 Conclusion

In the first chapter, the conceptual framework of the present study, significance of the study, statement of the problem, operational definition, objectives of the study, hypothesis, plan and procedure of the study and organization of the thesis are highlighted. The review of related literature and research studies pertaining to the present investigation are presented in the next chapter.
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