CHAPTER III
REVIEW OF RELATED STUDIES

3.1 Studies Related to the Existence of Social Intelligence as a Distinct Construct
3.2 Studies Related to the Dimensionality of Social Intelligence
3.3 Studies Related to the Assessment of Social Intelligence
3.4 Studies Related to the Development of Social Intelligence
3.5 Studies Related to Social Intelligence in General
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A systematic review of related studies is an inevitable part of any investigation. It allows an overall understanding of the state of knowledge in the problem area. The main purpose of reviewing the studies is to determine what has already been done in the related areas of the problem that the investigator is intending to take up. This helps not only in avoiding unintentional duplication but also provides valuable guidance in defining the problem, recognizing its significance and in suggesting promising data gathering devices, appropriate research design and source of data. It also guides the investigator in making comparisons between the findings of his study and the findings of other related studies.

The investigator reviewed as many studies as possible that are related to the different aspects of the problem under investigation. A brief account of the relevant studies reviewed by the investigator is presented below under the following headings.

3.1 **Studies Related to the Existence of Social Intelligence as a Distinct Construct**

3.2 **Studies Related to the Dimensionality of Social Intelligence**

3.3 **Studies Related to the Assessment of Social Intelligence**

3.4 **Studies Related to the Development of Social Intelligence**

3.5 **Studies Related to Social Intelligence in General**

3.6 **Studies Related to Study Skills**

3.7 **Studies Related to Aggression**
3.1 Studies Related to the Existence of Social Intelligence as a Distinct Construct

Weis and Süß (2007) conducted a study that conceptualized Social Intelligence as a performance construct based on Thorndike’s idea of Social Intelligence as a mental ability distinct from abstract and mechanical intelligence (1920). The study provided evidence for the multidimensionality of the Social Intelligence construct and demonstrated the discriminability of Social Intelligence from academic intelligence.

Albrecht (2005) has reported that Social Intelligence is distinct from emotional intelligence, though both are closely interwoven.

Lee, Wong, Day, Maxwell and Thorpe (2000) carried out a study to assess whether the crystallized and fluid distinction commonly discussed in the academic intelligence literature was applicable to the domain of Social Intelligence. Results showed convergent and discriminated validities for the 4 trait constructs: social knowledge (hypothesized to reflect crystallized social intelligence) social inference (hypothesized to reflect fluid social intelligence), crystallized academic and fluid academic intelligences. The study revealed that the crystallized and fluid distinction might be applicable in the Social Intelligence domain also.

Lee (1999) carried out a study to compare two aspects of Social Intelligence, flexibility and complexity with creativity. The results showed that the two domains of Social Intelligence were separable from each other. The results clearly indicated the evidence for Social Intelligence as a distinct entity by discriminating it from creativity.
Heidrich and Denny (1994) conducted studies that revealed that Social Intelligence and verbal ability are distinct constructs.

Riggio, Messamer and Throckmorton (1991) conducted a study that explored the relations among multidimensional measures of Social Intelligence and assessments of academic intelligence. The findings of the study indicated that social and academic intelligence are conceptually distinct but there is a considerable measurement of overlap between these constructs.

Brown and Anthony (1990) did a study to examine the relationship between social and academic forms of intelligence. Results revealed that academic and Social Intelligence represent separate, although partially overlapping, domains and that self assessment of Social Intelligence appear to bear little relationship to peer assessment.

Somzoa (1990) studied the relationship between Social Intelligence and likability and the relationship between these two constructs and general intelligence. The results supported the independence of Social Intelligence, general intelligence and likability as 3 separate constructs. The study revealed some overlap between the domains of social and general intelligence, but no relationship was observed between Social Intelligence and likability or between general intelligence and likability.

Boyle (1989) investigated the relationship between Social Intelligence and previously identified intellectual ability. The study revealed that there was no significant pattern of relationship existing between the two. Therefore it was found that IQ and Social Intelligence were two distinct and relatively autonomous entities. The study also suggested the Vineland Adaptive Behavior Scale and Children’s Social Attitude and Value Scale as potential screening instruments for the construct of Social Intelligence.
Murry (1988) studied the relationships among the competence aspect of Social Intelligence, general intelligence, and field-dependence-independence. An expected significant relationship between field-independence and social anxiety and an unexpected relationship between field independence and empathy skills were found out. The study revealed the independence of the two constructs - Social Intelligence and general intelligence.

Ford and Tisak (1983) conducted a factor analysis of intelligence data and found both convergent and divergent validity for Social Intelligence. It was also found that Social Intelligence was a better predictor of a behavioural measure of social effectiveness than was academic intelligence.

Sternberg, Conway, Keteron and Bernstein (1981) conducted studies that revealed social and academic intelligence as distinct constructs.

3.2 Studies Related to the Dimensionality of Social Intelligence

Frankovsky, Stefko, and Baumgartner (2006) employed behavioral – situational approach to examine Social Intelligence. The results of the study revealed two factors: socially negative solution and socially positive solution.

Stone (2006) studied about the moral dimensions of human Social Intelligence. It was argued that when the abstract cognitive abilities for recursion and metarepresentation, which are uniquely human, interact with the older social abilities (Empathy, Intersubjectivity) human beings are able to read abstractly about others’ mental states and how to affect them. The study concluded that it is these abstract cognitive capacities that give people the ability to be both cruel and compassionate, but it is the ability for empathy that keeps them moral.
Morris (1997) studied the role of Social Intelligence in managerial effectiveness. The 3 components of Social Intelligence investigated in the study were cognitive social structure accuracy, person perception accuracy, and self perception accuracy. The findings revealed that the 3 components of Social Intelligence were independent. Cognitive social structure accuracy, person perception accuracy, and self perception accuracy were found to be positively correlated with managerial effectiveness.

Karen and Jenne (1996) in the light of their studies proposed that social cognitive flexibility (the ability to adapt prior social knowledge to formulate solutions to new interpersonal situations) is an important component of Social Intelligence and speculate that a relationship exists between social problem solving and social giftedness.

Kotsmitzki and John (1993) examined the conceptual origin of Social Intelligence. They assembled a list of 18 features which make up people’s implicit concept of Social Intelligence. When subjects were asked to rate how necessary each feature was to their own personal understanding of Social Intelligence, the following dimensions emerged as most central to the prototype - Understands people's thoughts, feelings and intentions well, Is good at dealing with people, Has extensive knowledge of rules and norms in human relations, Is good at taking the perspective of other people, Adapts well in social situations, Is warm and caring, and Is open to new experiences, ideas and values. The study suggested that the most central components of Social Intelligence include cognitive as (eg. understanding others, knowing social rules) as well as behavioural aspects (dealing with people, social adaptability).

Zaccaro, Gilbert, Thor and Mumford (1991) described Social Intelligence as comprised of two aspects: (a) social understanding and (b) situationally appropriate behaviour. Socially-intelligent
individuals are aware of the social situation, including the problems and needs of others (social perceptiveness). Socially-intelligent individuals are also able to behave appropriately for different situations (behavioural flexibility). It was suggested that Social Intelligence links behavioural flexibility and social perceptiveness to leadership situations, enabling leaders to be effective.

Bass (1990) discussed several skills and abilities necessary for leadership. He declared that good leaders are those individuals who are best able to understand and interact with their followers. Good leaders show empathy for and understanding of the needs of their followers. Bass stated that good leaders spend time assessing the groups’ attitudes and motivations and are concerned about followers level of satisfaction. These components of a good leader are captured by the Social Intelligence construct. It seems plausible that that Social Intelligence is an essential component of leadership.

Barnes and Sternberg (1989) found that Social Intelligence has two distinguishable aspects, cognitive (i.e., the ability to decode nonverbal cues) and behavioural (i.e., social competence). It was revealed that these two components of Social Intelligence were significantly positively correlated with each other and that cognitive Social Intelligence was not correlated with academic intelligence.

Lowman and Leeman (1988), employing a number of performance measures, obtained evidence for 3 dimensions of Social Intelligence: social needs and interests, social knowledge, and social ability. The study also showed that the correlations of all 3 dimensions with grade point average, a proxy for academic intelligence were either null or negative.

Marlowe (1986) using social and behavioural rating scales, found that Social Intelligence consist of the following domains-prosocial attitudes, social skills, empathy skills, emotionality and
social anxiety. Each factor was found to be independent of verbal and academic intelligence.

Greenspan (1979) proposed a hierarchical model of Social Intelligence, in which Social Intelligence consisted of 3 components namely social sensitivity, reflected in role taking and social information; social insight, including social comprehension, psychological insight and moral judgement; and social communication, subsuming referential communication and social problem solving.

3.3 Studies Related to the Assessment of Social Intelligence

Unterborn (2011) developed a performance based measure of Social Intelligence using a situational judgement test format. Scores on the performance based Social Intelligence were compared to personality traits and general mental ability to give evidence of construct validity. The measure’s criterion related validity was established by using ratings of socially effective behaviours and performance in novel social situations. Results indicated that Social Intelligence is independent from, but related to general mental ability.

Dogan and Cetin (2009) investigated the reliability and validity of the Turkish version of the Tromso Social Intelligence Scale (TSIS) developed by Silvera, Martinussen, and Dahl (2001). Construct validity and criterion related validity and reliability were assessed. Factor analysis yielded 3 factor solutions as the original TSIS. Overall results of the study showed that this scale is capable enough to measure Social Intelligence among university students in a valid and reliable way.

Ascalon, Schleicher and Born (2008) developed a situational judgment test to assess Cross Cultural Social Intelligence (CCSI). The four phases of the development and validation of the CCSI
measure (using a total of 184 cross-cultural employees) were developing the scenarios and the response alternatives, the content analysis, and establishing construct validity. The results from the content analysis and construct validation provided support for the use of the CCSI in cross-cultural situations. The CCSI has not yet been validated in a criterion-related way (i.e. based on relations to job performance). Findings suggested that the possible uses for the CCSI in organisations include selection and/or promotion of expatriates and other employees in cross-cultural contexts and several types of training and development initiatives.

Weiss (2008) developed a test battery of Social Intelligence—the Social Intelligence Test Magdeburg, SIM. The test development was based on the performance model of Weiss and Süß (2005) and the associated taxonomic considerations. The test design cross-classified 3 operative ability domains (i.e., social understanding, social memory, and social perception) and four material related content domains (i.e., written and spoken language, pictures, and videos). All tasks were relied on genuine task material that was sampled in natural settings involving real persons. It was found that most of the tasks showed sufficient reliability coefficients.

Silvera, Martinussen and Dahl (2001) developed a self-report measure of Social Intelligence. Three studies were conducted to develop and validate the Tromsø Social Intelligence Scale (TSIS). Study I examined professional psychologists interpretations of Social Intelligence to derive a consensually agreed-upon definition of the construct. In study II, a large pool of Social Intelligence items were tested, and a 3-factor, 21-item scale was identified. In study III, the stability of this measure was confirmed.

Wong, Day, Maxwell and Meara (1995) showed that cognitive (social perception, social knowledge and social insight) and behavioural aspects of Social Intelligence can be discriminated.
They constructed measures of social perception (Accuracy in decoding verbal and nonverbal behaviour), social insight (Accuracy in interpreting social behaviour) and social knowledge (Awareness of the rules of etiquette). Results showed that social perception and insight were closely related, neither of these dimensions was closely related to social knowledge and none of the social abilities was related to traditional academic ability.

Stern (1994) investigated children’s assessment of their Social Intelligence using the Tetrahedral Model of Social Intelligence (TETRA) as a framework. Four scales from the Self-Assessment Inventory of Social Intelligence (SAISI) measured distinct factors, indicating that separate cognitive processes operate in children when they evaluate their social self concept. It was found that TETRA can be used as an effective framework for developing self-assessment measures and for investigating Social Intelligence.

Mathias and Nettelbeck (1992) conducted a study to evaluate the reliability of seven measures, selected to assess the social-cognitive variables hypothesized by Greenspan to define Social Intelligence. Each test’s internal, interacted and test-retest reliabilities were assessed. Interacted reliability coefficients were found to be high to very high, internal reliabilities were moderate to high and test-retest reliabilities were moderate to high. Internal and test-retest reliability coefficients compared favourably with those reported for the subsets of the revised Wechsler Intelligence scale for children.

Stricker and Rock (1990) administered a battery of performance measures of Social Intelligence, and found that subjects’ accuracy in judging a person and a situation portrayed in a videotaped interview was correlated with verbal ability.

Taylor (1990) proposed a semi structured Social Intelligence interview covering such domains as social memory, moral
development, recognition of and response to social cues, and social judgement. However, Taylor concedes that such an interview being ideographically constructed to take account of the individual’s particular social environment cannot easily yield numerical scores by which individuals can be compared and ranked. More important than ranking individuals, from Taylor’s point of view, was to identify areas of high and low functioning within various environments experienced by the individual and to determine the goodness of fit between the individual and the environments in which he or she lives. This latter goal was a primary thrust of the Social Intelligence view of personality exposed by Cantor and Kihlstrom (1987).

Neuringer (1986) conducted a study to assess the level of Social Intelligence in American student actors. The assessment was done by evaluating their ability to predict the responses of other students on an adjective checklist. The same task was set for two comparison groups—psychology graduate students and students from the general population sample. The study revealed that the student actors had a normal level of Social Intelligence. The result also showed that the acting students’ predictions were inferior to those of psychology graduate students but no different from those of the general undergraduate student sample.

### 3.4 Studies Related to the Development of Social Intelligence

Beheshtifar and Roasaci (2012) analysed the role of Social Intelligence in organizational leadership. It has been found that Social Intelligence is associated with enhanced problem solving abilities, experienced leadership, and positive interpersonal experience. The study concluded that it is important to develop strategies for improving Social Intelligence in organizations since it can serve as foundation for leadership effectiveness and success.

Wawra (2009) argued that Social Intelligence is a necessary
prerequisite for being a successful intercultural communicator. Cognitive goals have typically predominated in intercultural training programmes, followed by behavioural ones. Taking into account the latest findings of Social Neuroscience, the study revealed that affective domain is the most significant component in intercultural negotiations and should therefore be adequately represented in training programmes of intercultural training. An integrative approach to intercultural negotiations and training was proposed, based on the concept of Social Intelligence.

Seal, Boyatzis and Bailey (2006) conducted research to provide a theoretical model of the process whereby Emotional and Social Intelligence (ESI) is fostered in organizations. The study provided an overview of the theory of ESI, including the historical contributions and current conceptualizations. Guidelines for fostering ESI in organizations were also given. Unlike general intelligence or personality, the key assumption and rationale for the study was that ESI can be developed. Research has demonstrated that ESI competencies may be developed through a process of desirable, sustainable change called Intentional Change Theory (ICT).

Triliva and Poulou (2006) explored Greek teachers’ perceptions and understandings on what constitutes social and emotional competencies and how these competencies can best be enhanced within the classroom. The teachers acknowledged a complex and interactive model of abilities, competencies and ‘psychic virtues’ and a dynamic interaction of the child and his or her context. The findings highlight the significant role of the socio cultural context in understanding and conceptualizing social and emotional competencies.

Gadre (2004) studied the effect of school climate on Social Intelligence of students. The study showed that enriched school
environment was advantageous for the development of Social Intelligence among average students.

Rani (1998) conducted a study of children’s psychological development in relation to home environment. Children from favourable home environment homes were found to be warm-hearted, outgoing and socially more intelligent than children from unfavourable homes.

Zhan (1995) examined the relationship between Chinese children’s Social Intelligence and various aspects of their social experiences. The results showed that there were some significant relationships between children’s Social Intelligence and certain aspects of their social experiences. It was found that a warm and close parent-child relationship which promotes two-way communication is conducive to the development of children’s Social Intelligence. However, a strict or controlling parental child rearing perspective which endorses criticizing rather than praising children and discourages dissent from children is not conducive for the development of children’s Social Intelligence.

Blaise and Elisabeth (1993) assessed Social Intelligence from the perspectives of information management, information policy and information economics. They reviewed tools and techniques associated with Social Intelligence and suggested education and training of Social Intelligence.

Costanzo (1992) conducted a study to investigate the effectiveness of using previous research findings as a means of teaching students how to interpret verbal and nonverbal behaviours. Initially students were given pretest and then randomly assigned to 1 of 3 conditions: no training, receiving an informational lecture about verbal and nonverbal cues, or receiving practice in identifying relevant cues in videotaped interactions. The results indicated that only the group that received practice
significantly improved its ability to correctly interpret verbal and nonverbal behaviour. Information alone produced no improvement in performance, but it significantly increased students’ confidence in the accuracy of their performance. Gender differences were also found. Although pretest scores indicated that women earned higher accuracy scores than men, men were much more confident that they had performed well.

Marlowe (1985) designed a training course for improving social functioning in normal adolescents and adults. The systematic behavioural and educational interventions included in the course were assertiveness, social skills, interpersonal communications, social problem-solving, team development, negotiation, coaching and self image.

Wilson (1978), Desen (1980) and Maria and Piper (1980) from their studies concluded that early home environment is a significant prediction of mental development and at the same time the home is of extraordinary importance in the development of Social Intelligence.

3.5 Studies Related to Social Intelligence in General

Sembiiyan and Vishvanathan (2012) studied college students’ attitude towards regionalism in relation to their Social Intelligence. The study revealed that there was no significant relationship between attitude towards regionalism and Social Intelligence. It was also found that female students were better than male students with respect to their Social Intelligence. The study highlighted that students in developing countries like India, should be empowered with essential knowledge and information for achieving acceptable levels of Social Intelligence.

Kaushik and Sanwal (2010) have reported that among elderly people, Social Intelligence tends to diminish with increasing age.
Meijs, Cillessen, Scholte, Segers and Spijkerman (2010) compared the effects of Social Intelligence and cognitive intelligence, as measured by academic achievement, on adolescent popularity. A distinction was made between sociometric popularity, a measure of acceptance, and perceived popularity, a measure of social dominance. Results showed that perceived popularity was significantly related to Social Intelligence, but not to academic achievement. Also, sociometric popularity could be predicted by an interaction between academic achievement and Social Intelligence.

Tanakinci and Yildirim (2010) investigated the impact of Social Intelligence on academic achievement of students attending school of vocational studies. A weak positive relationship was revealed between Social Intelligence and academic achievement of students.

Baumgartner (2009) studied the relationship between Social Intelligence and interpersonal traits in a sample of elementary school pupils. Social Intelligence components included social information processing, social skills and social awareness. Interpersonal traits included 4 characteristics - withdrawnness, harshness, kindness and dominance. Withdrawnness was found to correlate negatively with components of Social Intelligence. Harshness was correlated negatively with social awareness. Dominance and kindness were positively correlated with social information processing and social skills. The findings supported closeness of Social Intelligence and personality. Boys were found more withdrawn, harsher and less kind in comparison to girls who reached higher scores in components of Social Intelligence.

Hooda, Sharma and Yadava (2009) examined the relationship between positive psychological health and Social Intelligence. The results revealed significant positive association between the two components (satisfaction with life and happiness) of positive
psychological health and six factors (cooperativeness, confidence, sensitivity, tactfulness, sense of humour and memory) of Social Intelligence. Since various factors of Social Intelligence significantly predict different components of positive psychological health, the study recommended further researches for designing possible interventions to enhance Social Intelligence among people.

Prabhakar (2009) analysed the status of Social Intelligence of teacher trainees and school children in Maharashtra. It was found that both teacher trainees and pupils had low level of Social Intelligence. The study suggested theoretical and practical programmes to be incorporated in the teacher training course for the nourishment of Social Intelligence among teacher trainees.

Khudaverdyan (2009) carried out a study that explored the relationship between Emotional Social Intelligence and academic outcomes of at risk secondary school students. A significant relationship was found between Emotional Social Intelligence and passing examination. The study showed that Emotional Social Intelligence may serve as a predictor of academic outcomes.

Minikutty (2009) found that there is a significant positive relationship between Social Intelligence and teacher competency of student teachers. It was suggested that teacher education courses should include necessary provisions for the enhancement of Social Intelligence of teacher trainees.

Suresh (2009) carried out a study to identify the level of Social Intelligence of student teachers of Guntur district in Andhra Pradesh. It was found that student teachers were having high level of Social Intelligence. Gender, locality, teaching methodology and qualification of student teachers were found to have no significant influence on their Social Intelligence.
Dong, Koper and Collaco (2008) found that there is a significant relationship between Social Intelligence and intercultural communication sensitivity.

Henderson, Gerson and Woodward (2008) carried out a study on the birth of Social Intelligence by examining infants’ understanding of human action. The findings showed that infants come to understand that intentions and attention guide human action within the first few months of their lives. The study concluded that infants are well on their way to becoming social experts by their second birthdays.

Juchniewicz (2008) investigated the influence of Social Intelligence on effective music teaching. Results showed that “exemplary” or effective teachers scored higher than “challenged” or ineffective teachers on the Social Intelligence measure. Effective communication skills, including both categories of Effective Instructional Communication and Effective Non-Instructional Communication were the most frequently cited attributes for “exemplary teachers”.

Lovejoy (2008) conducted a study to determine the relationship between gender and levels of Social Intelligence among Indiana school superintendents. The analysis of the data collected revealed that female and male superintendents in Indiana did not show significant differences on the overall level of Social Intelligence. There were no gender differences in the levels of social information processing, social skills and social awareness. The superintendents who earned their degree before 1990 showed significantly higher levels of Social Intelligence when compared to those who earned their degree after 1990.

Wessel et al. (2008) studied the relationship between Emotional-Social Intelligence and each of leadership, caring and moral judgement among college students. Results confirmed
positive relationship between Emotional Social Intelligence and leadership and suggested that Emotional Social Intelligence may be an important construct in caring. Emotional Social Intelligence was found not to be related to moral judgment.

Williams (2008) studied about characteristics that distinguish outstanding school principals. The findings indicated that outstanding school principals demonstrate a broad and deep repertoire of competencies related to emotional intelligence and Social Intelligence. The study suggested that emotional and social intelligence is a critical factor in effective principal performance and is an important framework to examine in future research.

Crowne (2007) examined 3 forms of intelligence: Social Intelligence, emotional intelligence and cultural intelligence. The study revealed that cultural intelligence and emotional intelligence are distinct but related constructs as well as subsets of Social Intelligence.

Ganadevan (2007) found that Social Intelligence scores of higher secondary students differ significantly with respect to caste, parent’s education and income.

Liff (2007) carried out a study on the relationship between social and emotional intelligence and success in college. The study revealed the very real, if not causal, relationship between social and emotional intelligence and success in college. The findings showed how sensitivities and learning within the affective domain are strongly linked to the efficacy of a successful collegiate experience for all students.

Minra (2007) conducted a research to examine the psychological profiles of people who publish their weblogs on the internet. The focus of study was on authors of informative weblogs, who have a powerful desire to provide information and share their knowledge. The results suggested that the system of weblog has
many benefits for supporting knowledge community, emergence of Social Intelligence and the weblog authors were oriented to reciprocal information interchange and perceive much psychological benefits from it.

Veronica (2007) studied social reasoning in people with high cognitive abilities. The results indicated that high-ability children and adolescents presented a significantly superior performance in tasks related with Social Intelligence, especially in reasoning processes which involve understanding and defining the social problem, planning social strategies and anticipating social consequences. The findings showed that people with high cognitive abilities have better social reasoning ability.

Bye and Jussim (2006) proposed a model for the acquisition of social knowledge and social competence. A review of approaches to Social Intelligence, a model of the acquisition of social knowledge and a model of the use of the social knowledge were presented. Social knowledge, defined as knowledge about oneself, as well as procedural knowledge of scripts, schemes and prototypes, was identified as an essential component of skilled social performance. The study indicated the importance of social knowledge exclusive of social skill or social competence.

Goleman (2006) found that school leaders have a significant influence on the social-emotional climate of the school as a whole, and have a responsibility to develop a socially intelligent leadership style that will engender a culture conducive to peak learning.

Hackworth and Brannon (2006) investigated the impact of Social Intelligence (measured in terms of discriminative facility) upon the breadth of social influence strategy choice. Findings indicated that individuals high in Social Intelligence showed a broader base of persuasion tactics in many situations. The results provided evidence for the role of discriminative facility as an aspect
of Social Intelligence that impacts social influence. The study concluded that Social Intelligence has a positive impact on social influence effectiveness.

Makovska and Kentos (2006) studied the relationship between abstract intelligence and Social Intelligence in children. The study showed significant relations between measurements of abstract intelligence and Social Intelligence, especially in the social awareness dimension.

Parales-Quenza (2006) in a study on astuteness, trust and Social Intelligence considered astuteness as a functional state of Social Intelligence opposed and related to trust at the same time. In the study, astuteness was introduced as an alternative notion to study the everyday tactical behaviour of ordinary people in their natural environments.

Vyrost and Kyselova (2006) conducted a study on the interconnections between Social Intelligence, wisdom, values and interpersonal personality traits among university students. The results indicated close mutual relations between Social Intelligence and wisdom-related knowledge. A higher level of wisdom-related knowledge was found to be associated with preference of such values as benevolence, universalism and conformity. Results also showed that there was correlation between Interpersonal personality traits like dominance and extraversion and measures of Social Intelligence.

Kaur and Kalaramma (2004) had undertaken a study to assess the levels of interrelationship between home environment, Social Intelligence and socio-economic status among high school students. Results revealed that socio-economic status has got effect on Social Intelligence. Home environment also showed positive impact on Social Intelligence.
Kobe, Reiter-Palmon and Rickers (2001) conducted a study to examine the power of both emotional and Social Intelligence to account for variance in self-reported leadership experiences. Results indicated that both Social Intelligence and emotional intelligence accounted for variance in leadership experiences. Although emotional intelligence was found to account for variance in leadership, it did not add unique variance beyond Social Intelligence. Thus the findings suggested that Social Intelligence played a principal role in leadership.

Baron-Cohen et al. (1999) studied the neural regions that comprise the social brain. The study confirmed that superior temporal gyrus, amygdala and some areas of the prefrontal cortex showed increased activation when using Social Intelligence. The results support the social brain theory of normal function and the amygdala theory of autism.

Elke (1997) conducted a study on intercultural comparison between Chinese and German subjects on prototypical behavior patterns of Social Intelligence. Chinese subjects generated a list of acts (specific behaviours) considered to represent Social Intelligence. These acts were rated by Chinese subjects and German subjects for prototypicality. A comparison of results showed that the construct of Social Intelligence is culture dependent.

Stewart (1997) confirmed the convergent and discriminant validity of practical intelligence by relating it to Social Intelligence, emotional intelligence and academic intelligence. For the study, Social Intelligence was considered as that representing social skills and emotional intelligence as that representing the identification of emotion. Practical intelligence was conceptualized as tacit knowledge and constructive thinking.

Ferentinos (1996) conducted a study to demonstrate that leader emergence across multiple group situations can be predicted
from measures of Social Intelligence. The characteristics of general intelligence and Social Intelligence demonstrated statistically significant, unique contributions to leader emergence scores. Among the behavioral measures, indices of behavioral changeability demonstrated significant relationships with leader emergence. General and Social Intelligence were found to contribute to perceptions of leadership.

Gilbert (1995) carried out a study to investigate the capacities that allow leaders to interact with their social environment. Social Intelligence was proposed as a characteristic of successful leadership. For the study, interpersonal perception, systems perception and behavioral flexibility were considered as the components of Social Intelligence. Comparisons were made between effective and ineffective military leaders and leaders of upper and lower organizational levels on Social Intelligence, as well as the structure of social knowledge. The results indicated that Social Intelligence and social knowledge structures significantly predicted leader effectiveness and organizational level beyond the prediction of cognitive skills (verbal intelligence and divergent thinking).

Boss (1994) suggested that moral intelligence is a function of Social Intelligence and have educational implications.

Oliver (1994) investigated the relationships among Social Intelligence, social influence, academic intelligence, and academic achievement. The study revealed that academic intelligence was significantly related to academic achievement. Age explained significant variance in social influence. Paralanguage, representing Social Intelligence was found to correlate significantly with academic intelligence and achievement. Results also suggested that social functioning should be considered in efforts to improve academic achievement and that the social influence technique is a promising measure of social interaction.
Weichman (1977) conducted a study where a high correlation was discovered between Social Intelligence and verbal skills.

Dydyks (1973) studied the relationship between Social Intelligence and interpersonal adjustment in children. The analysis revealed that Social Intelligence was positively correlated with interpersonal adjustment. It was also found that only a weak relationship existed between Social Intelligence and verbal skills.

Hoepfner and O’ Sullivan (1968) found that children with low IQ’s had a larger range on Social Intelligence measures, than children with high IQ’s.

3.6 Studies Related to Study Skills

Fazal, Hussain, Majoka and Masood (2012) carried out a study to find out the role of Study Skills in academic achievement of students. The findings of the study indicated a significant relationship between Study Skills like time-management skills, reading and note-taking skills with academic achievement. It was also found that girls were better in using Study Skills as compared to boys.

Shamana-tus-sabah and Gilani (2011) examined the relationship between home chaos and conduct problems, social skills and Study Skills of primary school children. Home chaos was revealed as a significant predictor of children’s conduct problems, social skills and Study Skills.

Wernerbach (2011) studied the impact of Study Skills courses on academic self-efficacy of students. The results revealed that students who had undergone study skills courses exhibited greater increase in academic self efficacy than those who had not enrolled in any such course.

Jansen and Suhre (2010) studied the impact of secondary school Study Skills preparation on students’ first-year university
study experiences, academic achievement and persistence. The results showed that the perceived Study Skills preparation concerning time management and learning skills had a positive impact on college students’ first-year study behavior and academic achievement.

Kayler and Sherman (2009) used a small-group counselling intervention program for promoting Study Skills, personal and social development of at-risk high school students. It was found that the intervention program strengthened students’ studying behaviours and increased connectedness to peers, teachers, school counsellors and the school as a whole.

Crede and Kuncel (2008) found that study habits, skills and attitudes are predictors of academic performance of students. It was also found that academic specific anxiety was found to be an important negative predictor of performance.

Rozalki (2008) studied the significance of student’s Study Skills such as listening, note-taking, and memory and found that these are crucial in student’s ability to succeed academically. The study stressed the importance of nurturing Study Skills especially in students with emotional and behavioural problems who often lack them.

Meneghetti, De Beni and Cornoldi (2007) studied the relationship between Study Skills and strategic knowledge and consistency in students. It was found that students with poor Study Skills were less able to make distinction between poor and good study strategies and were less consistent in matching their knowledge to their use of strategies. The findings of the study proved that strategic use and consistency play a crucial role in successful learning.

Lambert and Nowacek (2006) suggested 20 ways to help high school students to improve their Study Skills. It was found that
students specially lack the skills in the areas of listening, note-taking, test-taking, time management and organizational skills. The study demands teachers to incorporate Study Skills in their instruction.

Benner, Beaudoin, Kinder and Mooney (2005) studied the relationship between beginning reading skills and social adjustment of a general sample of elementary aged children. Reading skills included letter-word identification, word attack, passage comprehension, and auditory comprehension and social adjustment included social skills, problem behaviours, and academic competence. The results showed that early literacy skills and skills of auditory comprehension were positively associated with measures of social skills and academic competence. Early literacy skills and vocabulary were negatively associated with measures of problem behaviours. Letter-word identification was found to be the best predictor of social skills, problem behaviours and academic competence.

Robbins et al. (2004) studied the relationship between psychosocial and study skill factors and college outcomes by meta-analyzing 109 studies. The psychosocial and study skill factors included achievement motivation, academic goals, institutional commitment, perceived social support, social involvement, academic self-efficacy, general self-concept, academic-related skills, and contextual influences. The study confirmed the incremental contributions of the psychosocial and study skill factors in predicting college outcomes.

Gettinger and Siebert (2002) studied the contribution of Study Skills to academic competence and found that Study Skills are fundamental to academic competence. Evidence-based strategies that are effective in helping students to improve their Study Skills were also identified.
Kaukiainen et al. (2002) conducted a study on learning difficulties, Social Intelligence, and self-concept and their connections to bully-victim problems among children. The study revealed that learning skills, Social Intelligence, and self-concept were related to each other and to bully-victim problems among children. Social Intelligence was found to be positively correlated with learning skills, but negatively related to victimization. Bullying was positively correlated with self-concept scores for boys.

Schwanz (2001) carried out a study that examined the value of parent identified behavioural problems for predicting adaptability, social skills and Study Skills of school aged children. The results indicated that attention problems were the only significant predictor of social skills for boys and Aggression emerged as a significant predictor of social skills for girls. Parent identified attention problems along with a child’s intelligence accounted for a significant and meaningful amount of variance in Study Skills for both boys and girls. Ratings of hyperactivity were found insignificant in predicting adaptive skills.

Purdie and Hatt (1999) conducted a meta-analysis of 52 studies that investigated the relationship between Study Skills and learning outcomes and concluded that cognitive and affective outcomes are enhanced when students are taught to implement effective learning behaviours.

Entwistle and Tait (1996) designed an inventory – the Approaches and Study Skills Inventory for students Test (ASSIST), for use in higher education studies. The main purpose of the test was to give information about the student’s motivation for education and learning styles.

Vallance (1994) employed a developmental-organizational framework to explore some processes that underlie the relation between language skills and social competence in language learning.
disabled children (LLD) and non language learning disabled children (non-LLD). The results established that the scores in intelligence, expressive and interpretative social disclosure and social competence for LLD children were significantly lower than those of non-LLD children.

### 3.7 Studies Related to Aggression

Chen, Huang, Wang and Chang (2012) investigated the relationship between Aggression, peer relationships and depression in children. Results showed that Aggression, both in direct and indirect manners is negatively contributed to later peer relationships and positively contributed to depression in late childhood. It was concluded that children’s early behavioural characteristics may serve to facilitate the development of social competence and exacerbate the development of social problems.

Saadi, Honarmand, Najarian, Ahadi and Askari (2012) evaluated the effect of emotional intelligence training on reducing Aggression in high school students. The results of the study indicated that training emotional intelligence skills will lead to reduced Aggression and increased social adaptability of students.

Palmen, Vermande, Dekovic and Van Aken (2011) examined the longitudinal relations between competence and problem behaviour in elementary school children. Competence included academic achievement and social preference whereas problem behaviour included loneliness and Aggression. Results revealed that competence was related to later problem behaviour. It was found that academic competence was related to lower levels of later loneliness whereas social preference was related to both lower levels of loneliness and Aggression overtime.

De Haan, Prinzie and Dekovic (2010) examined how and why the children from age 6 to 15 years change in Aggression and delinquency. The study revealed that Aggression and delinquency
showed differential, though interrelated development. Children who are less extraverted, benevolent and conscientious and more imaginative were found to be more susceptible to over-reactivity. It was concluded that parents of this type of children are in need of being supported in developing and maintaining effective disciplinary techniques.

Dounavi (2010) studied the relationship between social information processing and the level of Aggression and victimization in primary class children. The study revealed that a deficit in social information processing will be related to higher levels of Aggression and victimization.

Leff et al. (2010) developed and evaluated the Preventing Relational Aggression in Schools Everyday (PRAISE) Program. The 20-session classroom-based universal prevention program was found to be beneficial for girls. Girls who have undergone the program demonstrated higher levels of knowledge of social information processing and anger management techniques and lower levels of relational Aggression as compared to the girls in the no-treatment control group.

Nipedal, Nesdale and Killen (2010) examined whether the effect of social group norms on 7 and 10 year old children’s Aggression can be moderated or extinguished by contrary school norms. The findings of the study indicated that group norms influenced the participant’s direct and indirect aggressive intentions, but that the school norm moderated the group norm effect.

Walker (2010) studied relational Aggression in the context of schools. The study focused on ways in which schools can implement Aggression prevention programmes.

De Wein and Miller (2009) examined the effect of a classroom– based intervention on the frequency of Aggression–related injuries
occurring at an inclusive early education centre. The results suggested that parent perceptions regarding the impact of child Aggression at home declined following the treatment. Teacher ratings also suggested that teachers were satisfied with the usability of the procedures, the amount of work involved, and child outcomes.

Kuppens, Grietens, Onghena and Michiels (2009) studied the associations between parental control and children’s overt and relational Aggression. The study revealed that parental physical punishment and parental psychological control were positively associated with overt Aggression and relational Aggression in children. The findings support the hypothesis of specialized associations between parental control and child Aggression.

Moulden (2008) studied about Social Intelligence, cognitive distortions and victim empathy in men who sexually offend against children. Results showed that child molesters reported poor Social Intelligence, victim specific and general empathy deficits, and greater cognitive distortions about sexual contact with children. It was found that poor Social Intelligence contributes to negative attitudes and beliefs about sexual contact with children, which inhibits capacity for victim specific empathy responses which in turn leads to aggressive behaviour.

Valles and Knutson (2008) carried out a study to determine whether mother and peer’s responses to direct and indirect Aggression would contribute to children’s use of direct and indirect Aggression. The findings of the study revealed that different forms of Aggression result in differential responding by mothers and peers. Mothers and peers were reported to react more harshly in response to direct Aggression compared with indirect Aggression. Results also showed that boys tend to use physical Aggression more than girls whereas girls use indirect Aggression more than boys.
Low IQ was correlated with higher direct Aggression in girls but had no relation with Aggression in boys.

Babu (2007) conducted a study to measure the extent of Social Intelligence and Aggression among senior secondary school students. The results showed that Social Intelligence of the students was average and Aggression was high. Relationship between Social Intelligence and Aggression was found to be negative and negligible. The study concluded by suggesting that specified strategies should be developed to deal with aggressive behaviour of school students and that a well arranged Social Intelligence oriented package must be developed and implemented in schools.

Heydenberk and Heydenberk (2007) studied the effect of a socio-emotional literacy and problem solving program in primary level classrooms. The results indicated that the socio-emotional problem solving curricula helped students to constructively manage conflict by decreasing physical and verbal Aggression.

Findlay, Girardi and Coplan (2006) examined social behaviours and social understanding of empathetic and low-empathetic children. Results indicated that more empathetic children exhibited greater prosocial behavior and less Aggression and social-withdrawal than low empathetic children. Empathic children were found to be more socially sensitive, both in terms of their social understanding of others as well as their own social behaviours.

Khatri and Kupersmidt (2003) examined peer Aggression, victimization, and social relationships in children and adolescents. It was found that aggressors and victims were more likely to be rejected than their nonaggressive and non victimised peers.

Dodge et al. (2002) conducted a study, the results of which indicated that that SIP (Social Information Processing) constructs significantly predicted children’s aggressive behaviour problems as
measured by later teacher reports. The findings also supported the multidimensional construct validity of children's social cognitive patterns and the relevance of SIP patterns in children's aggressive behaviour problems.

Frey, Hirschstein and Guzzo (2000) designed Second Step, a primary prevention program to deter Aggression and promote social competence of children from preschool through Grade 9. The curriculum is organized around 3 areas of socio-emotional competency: empathy, social problem solving, and anger management.

Kaukiainen et al. (1999) studied the relationships between Social Intelligence, empathy, and 3 types of aggressive behaviour in school children. The study revealed that indirect Aggression correlated positively and significantly with Social Intelligence. Physical and verbal forms of Aggression had almost zero correlation to Social Intelligence. Empathy correlated negatively and significantly with every type of Aggression except indirect Aggression.

Dubow (1988) found out the relationship between Aggression and peer social status in a group of third-through fifth-grade children. Peer social status refers to the degree to which a child is accepted by his or her peer group. Results indicated low to moderate correlation between peer nominated Aggression and global indices of social acceptance. It was found that aggressive children largely comprised of rejected and average social status group, but not the popular or neglected groups.

Miller and Eisenberg (1988) conducted a study on the relationship between empathy and Aggression and found that empathy is a negative correlate of Aggression.
Conclusion

Researches based on Social Intelligence remained dormant for some years because of the question of whether the Social Intelligence construct exists at all. An extensive review of related studies helped the investigator to collect ample evidence for the existence of Social Intelligence as a distinct construct, separate from related constructs like academic intelligence and verbal ability (Brown & Anthony, 1990; Boyle, 1989; Hendrich & Denny, 1994; Murry, 1988; Riggio et al., 1991; Somzoa, 1990; Sternberg et al., 1981; Weiss & Süß, 2007). It was also useful for the investigator to identify the dimensionality of Social Intelligence and decided to include both cognitive and behavioural aspects (Kotsmitzki & John, 1993) in the present study.

A thorough analysis of the related literature was made use of in exploring the significance of the construct ‘Social Intelligence’ in the life of human beings, especially students. Related studies have exposed the crucial role of Social Intelligence on many areas of student development. Social Intelligence was found to have relevance on both the academic and behavioural outcomes of students. The investigator while reviewing the literature could trace out studies that revealed the influence of Social Intelligence on Study Skills (Kaukiainen et al., 2002) and Aggression (Dounavi, 2010; Moulden, 2008) of students. This created interest in the investigator to include these two variables in the present study.

Some studies recognized the need for training in Social Intelligence (Blaise & Elisabeth, 1993; Hooda, Sharma & Yadava 2009; Sambiyan & Vishvanathan, 2002) and some recommended the implementation of Social Intelligence oriented packages in schools (Babu, 2007). The review of related literature also revealed that no such studies were conducted on primary level students in Kerala. It is worthy to note that Social Intelligence research in India
is still in its budding state. Majority of the studies on Social Intelligence were done abroad. The state of research on Social Intelligence in India is not up to the desired level. All these factors motivated the investigator to carry out the present study which is entitled as 'Developing a package for enhancing Social Intelligence of students at primary level'.
References


