2.0 Introduction

The phrase ‘review of literature’ consists of two words: Review and Literature. In research methodology the term ‘literature’ refers to the knowledge of a particular area of investigation of any discipline which includes theoretical, practical and its research studies. The term ‘review’ means to organize the knowledge of the specific area of research to evolve an edifice of knowledge to show that his study would be an addition to this field. Thus review of related literature means allowing the researcher to acquaint himself with current knowledge in the field or area in which he is going to conduct the research.

Title of the Study: A Study of Social Intelligence In Relation To Teaching Aptitude of Student Teachers in the state of Meghalaya

With regards to researches done on Social Intelligence a number of studies have been conducted on Social Intelligence.

2.1 Studies Conducted Abroad

A number of studies on Social Intelligence and Teaching Aptitude have been conducted abroad. The details of these studies have been given in the following.
2.1.1 Social Intelligence

A study on Measurement of Social Intelligence was conducted by o'sullivan (1965). Experimental tests (23) were constructed to measure certain behavioral-cognition factors of social ability. The tests, as well as 24 marker tests of semantic and figural ability, were administered to white, middle-class, average intelligence 11th graders (240). The stimuli consisted mainly of photographs, drawings, and cartoons. Words were used as little as possible. All six of the behavioral-cognition factors hypothesized were identified in the analysis. No social intelligence dimensions were discovered. If predictive validity could be established, these tests might serve as job-selection instruments or training devices in a clinical setting.

Bailey (1968) made a study on Social Intelligence, Achievement, and the Elementary-School Child. This study assesses the social intelligence component using the Friendship Rating Scale. In a cohesive fifth grade class, peer acceptance was found to co-vary with academic achievement at the same magnitude that such achievement related with measured intelligence. Self ratings were not as efficient as peer ratings in the prediction of academic success.

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This study investigated social intelligence in relation to individuals coping with other persons. In terms of structure of intellect theory, the first of these two areas includes six behavioral cognition abilities, one for each kind of product or mental construct of information. The second includes six behavioral divergent production abilities, concerned with the generation of behavioral ideas in quantity and variety. There were 22 tests designed to measure univocally those six DBX abilities. In order to determine the distinctness of these hypothesized abilities from behavioral cognition abilities on the one hand and from semantic divergent production abilities on the other, three of the former and four of the latter were represented by tests, plus the ability CMA, to represent the verbal IQ. Analysis revealed that DBX abilities could be demonstrated as distinct from one another, from behavioral cognition abilities, from semantic production abilities, and from IQ.

A study on A Search for Social Intelligence was conducted by Keating (1978). Three measures of academic intelligence and three measures of social intelligence were investigated in a group of college students. In the social domain, intradomain correlations were no

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higher than interdomain, factor analyses produced no identifiable social factor, and academic measures were better at predicting a social competence criterion than social measures.

A study was conducted by Snyder and Michael (1983)⁴ on The Relationship of Performance on Standardized Tests in Mathematics and Reading to Two Measures of Social Intelligence and One of Academic Self-Esteem for Two Samples of Primary School Children. The purpose of this study was to provide evidence of the validity of two measures of social intelligence and a self-esteem scale relative to math and reading achievement. The social intelligence measures showed modest degrees of concurrent and predictive validity; the academic self-esteem measure failed to demonstrate its validity.

Marlowe (1986)⁵ investigated a study on Social Intelligence: Evidence for Multidimensionality and Construct Independence. A multidimensional model of social intelligence was empirically derived. Through the use of factor analytic techniques, five domains

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of social intelligence were identified and found to be independent of verbal and abstract intelligence.

A study on Confirmatory Maximum Likelihood Factor Analysis as Applied to Measures of Social Intelligence within the Structure-of-Intellect Mode was conducted by Dunmire (1988). Confirmatory maximum likelihood factor analysis was used to determine how accurately each of several hypothesized combinations of first-order and/or higher-order factors could describe the covariation within selected sub-matrices taken from the total correlation matrix originally analyzed by M. O'Sullivan established from a total correlation matrix of variables including both anchor tests or reasonably well-established factorial content and experimental measures of social intelligence designed to reflect selected constructs within the structure-of-intellect model of intelligence. Results indicate that: (1) confirmatory analysis permitted the reproduction of first- and higher-order factors within the social intelligence portion of the structure-of-intellect model; (2) a single higher-order or general factor of behavioral content constitutes a viable alternative to account for much of the covariance among the 23 measures of behavioral

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cognition that were tested; and (3) the first-order factors identified by O'Sullivan were not supported.

A study on Social Intelligence and Decoding of Nonverbal Cues was investigated by Barnes and Sternberg (1989). The relationship between non-verbal decoding ability and social intelligence, defined as the ability to decode social information accurately, was studied using 40 adults. Results are discussed in the framework of R. J. Sternberg's triarchic theory of human intelligence. Decoding skills appeared to be an important part of social intelligence.

Another study on The Role of Self Monitoring, Conformity, and Social Intelligence in Selection of a College Major by Gabrielsen (1992) was done in Boston to examine the role of self monitoring in choice of college major. Samples of 38 male and 54 female volunteer general psychology students were taken. Data were collected using a four-part questionnaire that explored background, a self monitoring scale, a personal freedom versus social conformity scale and a friendship scale. Results indicated that self monitoring played a role in selection of college majors. However, data also indicated that the direct influence of close friends was not what most persuaded self...

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monitors with regard to choice of major. Rather, broader social conformity factors such as the major's reputation, image and prestige attracted high self monitors to a major. The study also found that high self monitors were attracted to majors requiring low social intelligence suggesting that self monitors prefer enterprising but not necessarily social occupations where they, not others, can be the center of attention. Included are 23 references and the results indicated that self monitoring played a role in selection of college majors.

A study conducted by Mathias and Nettelbeck (1992)\(^9\) on Reliability of Seven Measures of Social Intelligence in a Sample of Adolescents with Mental Retardation. Evaluation of the reliability of 7 measures assessing social cognitive variables hypothesized to define social intelligence, with a total of 125 adolescents with mental retardation, found high to very high inter-rater reliability coefficients; moderate to very high internal reliabilities; and moderate to high test-retest reliabilities.

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Kaukiainen, Bjorkqvist et.al (1996)\textsuperscript{10} made a study on Social Intelligence and Empathy as Antecedents of Different Types of Aggression in Turku (Finland). Empathy has been found to be an inhibitor of aggressive behavior. It was hypothesized that indirect aggression and direct verbal aggression require a certain level of social intelligence. So both of these were expected to correlate with social intelligence. Instead, it was found that the use of direct physical aggression does not depend on social intelligence to the same extent. Accordingly, the correlation between them is negative. Further a high level of empathy might be incompatible with aggression empathizing with a person may inhibit the wish to hurt him or her. Empathy could thus be expected to have a negative correlation with all types of aggression. The present study was an attempt to explore antecedents of different types of aggression: social intelligence and lack of empathy. The study found that social intelligence is connected to the use of indirect aggression and that empathy had a negative correlation to physical aggression. These were true only in the case of 12-year-old subjects.

Jones, Karen and Jeanne (1997)\textsuperscript{11} conducted a study in Indiana on Discrimination of Two Aspects of Cognitive-Social Intelligence from Academic Intelligence. A multitrait-multimethod study collected measures of social-cognitive flexibility, crystallized social knowledge, and academic problem solving from 169 high school seniors. Results support a division of social-cognitive intelligence into declarative and procedural social knowledge (crystallized) and flexible knowledge application are distinct from academic problem solving.

A study on Benefits of Social Intelligence in Home Dialogue Systems was conducted by Saini, Ruyter et.al (2005)\textsuperscript{12} in Netherland. The study reports an exploration of the concept of social intelligence in the context of home dialogue systems for an Ambient Intelligence home. The results showed that endowing a home dialogue system with some social intelligence can (a) create a positive bias in user’s perception of technology in the environment, (b) increase user acceptance for the home dialogue system, and (c) trigger social behaviors of the user towards the home dialogue system.

\textsuperscript{11} Jones, Karen; Day, Jeanne D. “Discrimination of Two Aspects of Cognitive-Social Intelligence from Academic Intelligence”. \textit{Journal of Educational Psychology}, 89:3 (Sep 1997): 486-97. Print

Chesnokova and Subbotsky (2005)\textsuperscript{13} investigated a study in Moscow (UK) on Cunning and Social Intelligence in Children: If You’re So Clever Why Aren’t You Cunning? The research investigates the phenomenology of SI in children and social and cognitive factors that determine the development of SI. The study aims to describe phenomenology of SI in children, to investigate age trends in the development of SI in childhood, to identify social and cognitive factors that determine the development of SI in children. Participants were Children of 6, 8 and 10 years of age from the low, middle and high SES families in Moscow (Russia). Results have shown that the average level of understanding of these cognitive structures by 5-years old was low and significantly lower than that of 8-years old or 11 years old. The results also supported the assumption that understanding false beliefs and understanding SI are two related cognitive skills. Children of 2 yrs develop lower forms of manipulating with their caregivers in the situations of conflict of interests: direct requests and emotional pressure and they are not yet SI as long as they represent a case of a direct manipulation with the communicative partner, (at the age about 3-4 years) the first simple forms of SI appear, such as cheating.

\textsuperscript{13} O Chesnokova and E Subbotsky. “Cunning and Social Intelligence in Children: If You’re So Clever Why Aren’t You Cunning?” (\url{www.google.com}) web 16\textsuperscript{th} Nov 2010
Structurally, this form of SI is mediated (by the deceptive perspective that children use in order to manipulate with the communicative partner) and voluntary actions, 6 years and more, including adulthood) higher and more sophisticated forms of SI develop, such as persuading the communicative partner, corrupting the partner, or misleading the partner with the help of using hidden aspects of a communicative situation.

Another study conducted by Anglada (2005)\textsuperscript{14} in Spain on Collaborations and Alliances: Social Intelligence Applied to Academic Libraries. The author attempts to show how cooperation as an application of the social intelligence is a tool to improve library services. For that, he uses the situation of Spanish university libraries between 1980 and 2005. Adopting an evolutionary approach, the author shows how cooperation has affected library organizations. Using the evolution of the academic libraries in Spain between 1980 and 2005, the article analyzes six different forms of relation or cooperation that can be established by libraries. Those are: companionship, collaboration, association, cooperation, alliances and fraternization. The author attempts to provide some guidelines for

\textsuperscript{14} Anglada, “Collaborations and Alliances: Social Intelligence Applied to Academic Libraries”. (www.google.com) web 16\textsuperscript{th} Nov 2010.
cooperation that may be of value to university libraries in their path towards the future. The approach is global, systemic and evolutionary. It is global in the sense that Spanish university libraries are taken as a model for exemplifying trends that are applicable to all types of libraries all over the world. It is systemic in the sense that it sees the Spanish case as one of a wide range of processes that do not occur in isolation in a world in which libraries—even at an international level—form part of a whole. Finally, it is evolutionary in the sense that it considers that the future will be built on our current achievements, which in turn depended on those of the past.

Hackworth and Brannon (2006)\textsuperscript{15} conducted a study in Manhattan (USA) on Understanding and Managing Others: The Impact of Social Intelligence upon Social Influence. The present study provided support for the relevance of social intelligence—to social influence. Consistent with but extending past research, recognizing situational influences (i.e., discriminative facility) was associated with effective social interactions. In particular, individuals high in discriminative facility demonstrated greater flexibility when

considering influence tactics than individuals low in discriminative facility.

Andreou (2006)\textsuperscript{16} investigated in Greece on Relations among Social Preference, Perceived Popularity, Social Intelligence and Two Types of Aggressive Behavior. Peer-estimation techniques were used to measure all major variables. Altogether, 403 Greek school children from fourth-through sixth-grade classrooms participated in the study. Both overt and relational aggressions were negatively associated with social preference for girls; overt aggression was positively associated with perceived popularity for boys. Relational aggression was positively associated with perceived popularity for both boys and girls, and social information processing only for girls. In addition, as was hypothesized, relational aggression was predicted by cognitive aspects of social intelligence whereas overt aggression by lack of social skills. Overt aggression was found to be a unique significant negative predictor of perceived popularity whereas relational aggression a positive predictor. Implications for intervention are discussed.

A study conducted by Erickson (2007)\(^{17}\) in USA on Social Systems: Designing Digital Systems That Support Social Intelligence. Large groups of people exhibit social intelligence: coherent behavior directed towards individual or collective goals. This paper examines ways in which such behavior is produced in face to face situations, and discusses how it can be supported in online systems used by geographically distributed groups. It describes the concept of a “social proxy,” a minimalist visualization of the presence and activities of participants in an online interaction that is used to make online social norms visible. It summarizes experience with an implemented system, presents conceptual designs that illustrate the range of situations to which social proxies can be applied, and discusses how to go about designing these types of visualizations. The results have shown that social proxies can be applied to a wide variety of online situations and group sizes. Whether facilitating small group conversations, or showing the state of task across an organization, all take the approach of providing information about the presence and activities of participants in a shared visualization, just as collections of people coordinate their activities in face-to-face situations, the approach of

creating a shared online visualization of the activity of a distributed group can enable the group to engage in the various sorts of coherent behavior that comprise social intelligence.

Another study by Miura (2007)\textsuperscript{18} in Japan on Can Weblogs Cause the Emergence of Social Intelligence? Causal Model of Intention to Continue Publishing Weblog in Japan. This research was conducted to examine the psychological profiles of people who publish their weblogs on the Internet and the characteristics of their community. Weblogs can be defined as online sites, not owned by major corporations, which are frequently updated by one or more people. Weblogs provide an opportunity to develop communication through information sharing with other Internet users. The particular focus is on authors of “informative” weblogs, who have a powerful desire to provide information and share their knowledge, rather than other weblog forms, such as “diary-like” weblogs, in which the authors have a more powerful need for self disclosure and the resulting interactions. The results have shown that weblog can cause the emergence of social intelligence. As well as the system of weblog have many benefits for supporting knowledge community, the weblog

authors, that is bloggers, are oriented to reciprocal information interchange and perceive much psychological benefits from it. Conceivably, bloggers are not conscious of their important role in knowledge community, but it is no doubt that bloggers and their reciprocal weblog community emerges and designs a social intelligence

Wallenius, Marjut et.al (2007) conducted a study in Finland on Digital Game Playing and Direct and Indirect Aggression in Early Adolescence: The Roles of Age, Social Intelligence, and Parent-Child Communication were examined in 478 Finnish 10- and 13-year-old school children based on self-reports. The results confirmed that digital game violence was directly associated with direct aggression, especially at age 10, but only among boys. The moderating role of social intelligence was substantiated among older boys: game violence was associated with indirect aggression among those with high level of social intelligence. Further, as hypothesized, digital game playing was associated with direct aggression especially when parent-child communication was poor, but only among boys. The findings

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emphasize the importance of individual and situational factors as moderators of the link between game violence and aggression.

Dong, Koper & Collaco (2008) investigated a study in Western United States on Social Intelligence, Self-esteem, and Intercultural Communication Sensitivity. This study focuses on two of these factors: social intelligence and self-esteem. A sample of 419 undergraduates at two universities in the western United States was used to examine the relationship between social intelligence and intercultural communication sensitivity. Additionally, the relationship between self-esteem and intercultural communication sensitivity was examined. Results support hypothesized relationships and indicate a statistically significant relationship between social intelligence (SI) and intercultural communication sensitivity (ICS), with SI accounting for more than 10% of the variance in ICS. In addition, both dimensions of self-esteem—self worth and self efficacy—were significantly related to ICS, accounting for an additional 4% of the variance in ICS. Implication and limitations of this study will be provided.

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A study conducted by Green and Ruyter (2009)\(^{21}\) on The Design and Evaluation of Interactive Systems with Perceived Social Intelligence: Five Challenges in Netherland. This paper reflects on discussions within the Social Intelligence for Tele-healthcare (SIFT) project. The SIFT project aims to establish a model of social intelligence, to support the user-centered design of social intelligence in interactive systems. This paper has outlined the conceptual background of social intelligence and five challenges of applying social intelligence to the design of interactive systems. It has been reported that an interactive system with social attributes has a variety of effects on the user–system interaction, making them: more likable, competent, cooperative, attractive, credible, informative, knowledgeable, will improve successful interaction and greater trust. Benefits of these include user trust in the system. This is noted to be an indicator of how accurately the user understands the system and is related to technology usage. These benefits suggest that systems with perceived social intelligence will ensure that the user intuitively understands system actions. This is essential considering the anticipated paradigmatic shift from existing user–system interaction, in

visions of the future. Nevertheless, the challenges identified reiterate the complexity surrounding social intelligence in design.

Braza, Carreras and Maria (2009) made a study in Spain on Social Cognitive Predictors of Peer Acceptance at Age 5 and the Moderating Effects of Gender. The study examined the effects of social intelligence, empathy, verbal ability and appearance-reality distinction on the level of peer acceptance, as well as the moderating role of gender. Participants were 98 five-year-old children (43 boys and 55 girls; mean age 5 years 3 months for boys and girls). The results showed a main effect of social intelligence on peer acceptance, as well as several other effects that were moderated by gender: a significant and positive effect of verbal ability on social acceptance was found for boys; appearance-reality distinction was found to have a positive effect on social acceptance in the case of girls; and although empathy had a significant positive effect on social acceptance for both boys and girls, this effect was more pronounced among boys. The results suggest that abilities promoting peer acceptance are different for boys and girls.

A study on Social Intelligence and Academic Achievement as Predictors of Adolescent Popularity conducted by Meijs, Noortje and

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Antonius (2010)\textsuperscript{23} in Northwestern Europe compared the effects of social intelligence and cognitive intelligence, as measured by academic achievement, on adolescent popularity in two school contexts. A distinction was made between sociometric popularity, a measure of acceptance, and perceived popularity, a measure of social dominance. Participants were 512, 14-15 year-old adolescents (56\% girls, 44\% boys) in vocational and college preparatory schools in Northwestern Europe. Perceived popularity was significantly related to social intelligence, but not to academic achievement, in both contexts. Sociometric popularity was predicted by an interaction between academic achievement and social intelligence, further qualified by school context. Whereas college bound students gained sociometric popularity by excelling both socially and academically, vocational students benefited from doing well either socially or academically, but not in combination.

Another study on the Influence of Social Intelligence on Effective Music Teaching by Juchniewicz (2010)\textsuperscript{24}. The purpose of this study was to investigate the influence of social intelligence on

effective music teaching. Forty teachers from "exemplary programs" and "more challenging programs" across band, chorus, orchestra, and general public school music programs were administered the Interpersonal Perception Task-15 (IPT-15). In addition, 84 external evaluators viewed teaching excerpts of 12 "exemplary" and "challenged" teachers and rated the (a) overall effectiveness and (b) main attribute that influenced their evaluations of each teaching excerpt. Results indicated no significant differences between the IPT-15 scores of "exemplary" teachers and "challenged" teachers. The external evaluators rated teachers identified as "exemplary" significantly higher than they rated teachers labeled as "challenged."

The majority of attributes influencing external evaluators' ratings of overall teacher effectiveness were social, constituting more than 85% of all responses. All teachers who demonstrated effective social skills were perceived as effective teachers. Effective communication skills were the most frequently cited attributes for "exemplary" teachers, whereas ineffective classroom management was the most listed attribute for why teachers were rated ineffective.
A study done by Barber, Franklin et.al (2010)\textsuperscript{25} on Higher Social Intelligence Can Impair Source Memory. Source monitoring is made difficult when the similarity between candidate sources increases. The current work examines how individual differences in social intelligence and perspective-taking abilities serve to increase source similarity and thus negatively impact source memory. Strangers first engaged in a cooperative storytelling task. On each trial, a single word was shown to both participants, but only 1 participant was designated to add a story sentence, using this assigned word. As predicted, social intelligence negatively predicted performance in a subsequent source-monitoring task. In a 2nd study, preventing participants from being able to anticipate their partner's next contribution to the story eliminated the effect.

A study conducted by Sandra Hampel, Susanne Weib, Wolfgang, Michael (2011)\textsuperscript{26} on “The relations between social anxiety and social intelligence: A latent variable analysis”. The investigators examined the relationship between social anxiety and SI in a general population sample using Structural Equation Modeling. Dimensions


\textsuperscript{26} Hampel; Weib;Wolfgang, "The relations between social anxiety and social intelligence: A latent variable analysis”. Journal of Anxiety Disorders, Volume 25, Issue 4, May 2011, Pages 545-553. (www.google.com) web 4\textsuperscript{th} Nov 2011.
of social anxiety as postulated by Clark and Wells (1995) and facets of SI (social understanding, social memory, and social perception), were negatively correlated. Use of safety-behavior in particular was related to deficits in social understanding and social perception and memory. Results suggest small to medium sized relationships between specific facets of social anxiety and certain domains of SI. Therapeutic implications for socially anxious individuals concerning SI are discussed.

Another study was done on “Exploring the Relationship between Teachers’ Social Intelligence and Classroom Discipline Strategies” conducted by Jeloudar and Yunus (2011). The purpose of the study is to analyze the social intelligence level of teachers employed in government secondary schools in Malaysia based on selected demographic variables such as age, and how they relate to the classroom discipline strategies used. The sample of the study comprises 203 teachers. The study also revealed that there were significant differences between teachers’ age groups and their social intelligence. Further a significant relationship was noted between teachers’ social intelligence and the six strategies of classroom

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discipline strategies (discussion, recognition, involvement, hinting, punishment and aggression).

### 2.1.2 Teaching Aptitude

A few studies have been done abroad on teaching aptitude. A study conducted by Gipson (1960)\(^\text{28}\) on Relationship of Teaching Aptitude to Age, Sex and Classification of Students at Southern University. The George Washington University testy of teaching aptitude was administered to 353 students primarily enrolled in the courses, introduction to education, principles of secondary education and methods in elementary science and mathematics. Scores were analysed for the means, standard deviations, ranges, and coefficient of variability according to age group, sex and classification. The results have shown that women students show a slightly higher aptitude for teaching than men on a whole. Senior students show a significantly higher degree of aptitude for teaching than sophomores or Freshmen but they did not score significantly higher than juniors, junior students scored significantly higher than Freshmen or sophomores and only slightly lower than senior.

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students. Aptitude appears to increase with college experience but shows only slight tendency to increase with ages below 29.

A study investigated by Ekstrom (1974)\textsuperscript{29} on Teacher Aptitude and Cognitive Style: Their Relation to Pupil Performance in California. The paper suggests a promising model, based on a study of elementary school teachers in California, to investigate the relationship between the cognitive characteristics of teachers, their teaching behavior, and the academic success of their pupils. In the research model, two major components which affect student achievement were measured: (1) Teacher Knowledge (knowledge of subject being taught and knowledge of teaching); and (2) Teacher Aptitude (verbal, numerical, reasoning, memory, and kinds of divergent production aptitude). It is hypothesized that certain matches between teacher and pupil knowledge, skill, aptitude, and cognitive style tend to facilitate pupil learning. A preliminary factor analysis of the above components indicates that the Teacher Test Battery developed in conjunction with this research model was actually able to measure these structures.

\textsuperscript{29} Ekstrom, “Teacher Aptitude and Cognitive Style: Their Relation to Pupil Performance”. (www.eric.ed.gov) web 15\textsuperscript{th} Nov 2010.
Ekstrom (1978) made a study on Relationship between teacher aptitudes, teaching behaviors and pupil outcomes. A model of elementary school teacher behavior affecting pupil outcomes is presented, and research based upon that model is discussed. A portion of the model, the Relationship between teacher aptitudes and knowledge, teaching behavior and pupil outcomes is focused upon. Aptitudes considered important including verbal and reasoning ability, memory, fluency, flexibility and sensitivity. 42 second grade and 55 fifth grade teachers and the pupils to whom they taught mathematics and /or reading were studied. Classroom observation, tests of students’ cognitive, affective, achievement and aptitude levels, and tests of teacher aptitude, affective and cognitive style/content tests provided a data base for analysis. Relationships between the factors tested and instructional behavior are examined. Only cognitive style and one attitude component (level of aspiration) were found consistently related over both grade levels and subject. In addition, interaction between specific teacher characteristics, especially aptitude and instructional behavior are suggested by the data.

A study was done by Koran, Snow and McDonald (2007)\(^3\) in Texas on Teacher Aptitude and Observational Learning of a Teaching Skill. The researchers investigated on individual differences in acquiring a teaching skill from written and video-mediated modeling procedures. 121 intern teachers were given aptitude tests representing verbal and perceptual abilities (selected from the Educational Testing Service's Kit of Reference Tests for Cognitive Factors and from a series of film and audio tests) then randomly assigned to a video-modeling, written-modeling, or no modeling treatment. Criterion performances were the frequency, variety, and quality of the modeled teaching skill used on 3 separate microteaching sessions and on 3 written measures. Analysis of variance results show that video modeling produced significantly higher performance frequencies than written modeling, with both modeling treatments significantly outperforming the control treatment. Regression analyses of Aptitude Treatment interactions show that Hidden Figures, Maze Tracing, Film Memory, and Sentence Reproduction scores interacted significantly with the modeling treatments.

2.2 Studies Conducted In India

2.2.1 Social Intelligence

In Indian context a few studies have been conducted on Social Intelligence. A study conducted by Kaur and Kalaramna (2004)\(^\text{32}\) in Punjab (Ludhiana) on Interrelationship between Home Environment, Social Intelligence and Socio-economic Status among Males and Females was undertaken to assess the existing levels of various age and two sexes. The data was collected from randomly selected four high schools in the villages of Ludhiana –I block of Ludhiana district. Results revealed that socio economic status has got effect on social intelligence. Home environment also showed positive impact on social intelligence.

Gadre (2004)\(^\text{33}\) investigated on Effect of School Climate on Social Intelligence in Maharashtra. The research aims to study social intelligence of the gifted and average students in different school environments varying on the dimension of enrichment. Two enriched environment and two non-enriched environment schools were selected from fifteen different schools that were studied for existing school


environment. General intelligence tests were used for selecting gifted and average students. Top five percent students were selected as gifted where as middle fifty percent were selected as average. The performance of these students on social intelligence tests was compared to identify the differences on two interacting dimensions. Intellectual potential and school climate. This comparison showed that enriched school environment was advantageous for the development of social intelligence among average students. In case of gifted students observed mean differences were insignificant. However frequency analysis used chi-square revealed that synergistic interaction between high genetic potential and enriched school environment results in the formation of small intra-group clusters.

A study on Social Intelligence and aggression among senior secondary school students was conducted by Babu (2007)\(^{34}\) in Kerala. The aims of the study were to measure the extent of social intelligence among senior secondary school students; to measure the extent of aggression among senior secondary school students; to find out the relationship between social intelligence and aggression; to compare the students in their social intelligence; to compare the students in their

aggression. It was found that Social Intelligence among senior secondary school students is of average. They have a greater amount of aggression. Relationship between Social Intelligence and aggression scores of senior secondary school students is found negative and negligible for the whole sample. But it is not proven significant. Gender based comparison of Social Intelligence is proved significant. Social Intelligence based comparison of aggression is proven significant.

A study by Hooda ,Sharma and Yadava (2009) conducted in Delhi (Chandigarh) on Social Intelligence as a Predictor of Positive Psychological Health in a sample of 300 working adults (male=170 and female=130) examined the relationship between Positive Psychological health and Social Intelligence(SI) showed that there was significant positive association between the two components of Positive Psychological Health i.e. satisfaction with life and happiness, and six factors of Social Intelligence (Cooperativeness, Confidence, Sensitivity, tactfulness Sense of humor, and memory). Optimism was found to be significantly and positively correlated with patience, cooperativeness, confidence and tactfulness and negatively correlated

with memory. Further Step-wise regression analysis revealed that out of eight, seven factors of Social Intelligence significantly predict one or the other Positive Health dimensions.

Another study on Social Intelligence of student teachers by Suresh and Rao (2009) conducted in Andhra Pradesh (Guntur district). The objectives of the study were To find out the Social Intelligence of Student Teachers; to compare the Social Intelligence of Male and Female Student Teachers; to compare the Social Intelligence of Rural and Urban Student Teachers; to compare the Social Intelligence of Graduate and Post Graduate of Student Teachers; to compare the Social Intelligence of Arts and Science Methodology of Student Teachers. The study concluded that both male and female student teachers are studying the same course as such there is no significance difference between them in their Social Intelligence. The rural and urban student teachers possessed high Social Intelligence with no significance difference between them. The student teachers of arts and science methodologies had no difference in their Social Intelligence. The graduate and post graduate student teachers possessed

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high Social Intelligence without any significant difference between them.

A study conducted by Kaushik and Sanwal (2010)\(^{37}\) on Determinants of Social Intelligence among Elderly in a residential colony of Ghaziabad (NCR of Delhi) with sample size of 150 (75 males and 75 females). The objectives were to understand the relevance of social intelligence for older people; to measure various domains of social intelligence of elderly respondents; to analyze the scores of social intelligence in the light of three age categories of elderly; to appraise gender-difference in domains of social intelligence. Results have shown that with increasing age, social intelligence tends to diminish. This trend of lower scores of old-old respondents compared to young-old ones continued in all the domains of social intelligence (Patience, Cooperativeness, Confidence, Recognition of Social Environment, Tactfulness, Sense of Humour and Memory) except in the case of Sensitivity. Findings were analyzed in the light of theoretical frameworks. Gender differentiation was also looked into with respect to social intelligence. Results show that elderly women scored low on all the dimensions of social intelligence except

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Sensitivity. Patriarchal social structure that has influenced the upbringing of females in the society characterized by lack of opportunities for independence, development and skill upgradation may be contributing to lower social intelligence among aged women.

2.2.2. Teaching Aptitude

Some studies were also conducted in the area of Teaching Aptitude of Student Teachers. Bhasin (1988)\(^3\) conducted a study on Teaching Aptitude And Its Relationship With Teaching Effectiveness Of The Higher Secondary School Teachers In Relation To The Modern Community In The State Of Madhya Pradesh. A sample of 300 male and 300 female teachers from science and human science disciplines were taken randomly from Government and Non-Government schools of urban and rural areas. The objective was to study the relationship of teaching aptitude with teaching effectiveness of higher secondary school teachers. It was found that teaching aptitude had a significant positive correlation with teaching effectiveness, but it had no direct relationship with teacher-community participation. A significant difference was found between science and human sciences teacher in

relation to teaching aptitude. No significant difference was also found between rural and urban, government and non-government, and male and female teachers with regard to their aptitude and effectiveness.

A study conducted by Meera (1988) on the Relationship between Teacher Behavior and Teaching Aptitude of Teacher-Trainees in Coimbatore. A random sampling of 60 student-teachers undergoing B.Ed course were taken at the Avinashilingam Institute for Home Science and Higher Education. The objectives of the study were to find out if there is any relationship between teacher behavior and teaching aptitude; to study the relationship between various aptitude factors and different components of classroom behaviour; to compare the behaviour of student-teachers who have secured high scores in the aptitude test with those who have low aptitude scores. It was found that there was a significant negative correlation between silence, confusion ratio and the three aptitude factors and the total aptitude scores. Two of the aptitude factors namely, mental ability and general information were significantly correlated with content cross ratio. The high aptitude group and the low aptitude group differed significantly in four behaviour components.

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Another study on the Relationship between Personality, Aptitude For Teaching And Effectiveness Of Secondary Teachers was done by More (1988) in Nagpur. The objective was to find out the standard of in-service teachers by evaluating the relationship between the teaching effectiveness, the teaching aptitude and the personality of the teachers. A purposive sampling was used of 500 male and female teachers taken from secondary schools in Nagpur. The results have shown that out of 16 personality factors only 6 factors were found to be positively correlated with teaching effectiveness, of which intelligence was the most important. The total personality of a teacher was also found to be affecting his teaching.

Kahlon and Saini (1989) investigated a study on Impact of Teacher Education on Teaching Aptitude of Punjab Agricultural University Education Graduates. The objectives of the study were to evaluate the impact of teacher education on the teaching aptitude of education graduates; to find out the relationship between academic achievement and teaching aptitude. Results have shown that teaching

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education courses affected the development of teaching aptitude and academic achievement was significantly related to teaching aptitude.

A study done by Reddy (1991)\textsuperscript{42} on Teaching Aptitude and Attitude of Secondary School Teachers was conducted in Andhra Pradesh. The objective was to test whether sex, age, faculty and category of teachers have any influence on their teaching aptitude and attitude. 332 student-teachers of B.Ed regular course were taken as the main sample. It was found that the female respondents performed relatively better in the teaching aptitude test and age and faculty did not influence the performance on teaching aptitude test.

Jain (1992)\textsuperscript{43} conducted a study in Nagpur on Creativity In Relation To the Teaching Aptitude, Skills and Personality Variables of Pupil Teachers. A sample of 280 pupil-teachers from two colleges was taken. The objectives of the study were to investigate the relationship of creativity with the teaching aptitude, skills and personality variables of pupil-teachers and its impact on their classroom creativity; to find out the differences between high and low creative pupil-teachers in the context of their teaching aptitude, skills and personality variables. The


findings have shown that positive and highly significant correlation was found between creativity and classroom creativity, teaching aptitude and teaching skills. Low but positive and significant relationship was found between teachers’ classroom activity and teaching aptitude.

A Study of Teaching Aptitude in Relation to General Teaching Competency, Professional Teaching and Academic Achievements of B. Ed. Pupil Teachers was done by Sharma (2004) in Haryana. A sampling of 262 pupil teachers (128 male, 134 female) 60 male from science stream, 68 male from arts stream and 63 female of science stream and 71 female of arts stream studying in the colleges of education affiliated to M.D University, Rohtak (Haryana) during the session 2002-03 were taken. The objectives of the study were to study the relationship among Teaching Aptitude (TA), General Teaching Competence (GTC), Professional Interest (PI) and Academic Achievement (AA) of B.Ed pupil teachers; to study the relationship of Teaching Aptitude (TA) with General Teaching Competence (GTC) by partialling out the effect of Professional Interest (PI) and Academic Achievement (AA); to study the relationship of Teaching Aptitude

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(TA) with General Teaching Competence (GTC) by partialling out the effect of Professional Interest (PI) and Academic Achievement (AA); to study the relationship of Teaching Aptitude (TA) with Academic Achievements (AA) by partialling out the effect of General Teaching Competence (GTC) and Professional Interest (PI); to study the effect of sex, discipline, general Teaching Competence (GTC) and their various interactions on Teaching Aptitude (TA); to study the effect of sex, discipline, Professional Interest (PI) and their various interactions on Teaching Aptitude (TA); to study the effect of sex, discipline, Academic Achievements (AA) and their various interactions on Teaching Aptitude (TA). The results have shown that Discipline and Sex of the pupil teachers does not contribute towards teaching aptitude of male and female arts pupil teachers were compared, it was observed that female arts pupil teachers secured significantly higher mean scores than their counterpart male arts pupil teacher. Teaching aptitude of the pupil teacher was significantly correlated with their general teaching competence, professional interest and academic achievements. General teaching competence and professional interest of the pupil teachers significantly affect their teaching aptitude. In addition to this, effect of academic achievement on teaching aptitude of the pupil teaches was positive but not significant at acceptable level of confidence.
Kaur (2006)\textsuperscript{45} investigated a study on Impact of B.Ed. Programme on Teacher Effectiveness, Personality, Teaching Aptitude and Attitude towards Teaching of Prospective Teachers. The sample was drawn from two districts of Punjab i.e. Ludhiana and Moga. Sample of 800 prospective teachers (660 female and 140 males) of session 2006-07 from eight colleges of Punjab University was taken for the study. The objectives were to see the impact of one year, regular, B.Ed. programme (face to face) on the prospective teachers; to find the change in Teacher Effectiveness of teacher trainees due to the impact of B.Ed. programme; to find the change in Teaching Aptitude of teacher trainees due to the impact of B.Ed programme; to find the change in Attitude Towards Teaching of teacher trainee due to the impact of B.Ed program; to find the change in Personality Traits of teacher trainees due to the impact of B.Ed. programme; to find the change in Teacher Effectiveness of male and female teacher trainees due to the impact of B.Ed Programme; to find the change in Teaching Aptitude of Male and Female Teacher Trainees due to the impact of B.Ed Programme; to find the change in Attitude towards Teaching of Male and Female Teacher Trainees due to the impact of B.Ed

Programme; to find the change in Personality Traits of Male and Female Teacher Trainees due to the impact of B.Ed Programme. It was found that B.Ed. programme was effective in bringing positive changes in Teacher Effectiveness, Teaching Aptitude, Attitude towards Teaching and Personality Traits of prospective teachers. The study revealed that B.Ed. Programme had more favourable effect on Teacher Effectiveness of Female Prospective Teachers as compared to male prospective teachers. It further added that B.Ed programme was equally effective in enhancing Teaching Aptitude and Attitude towards Teaching of both female and male prospective teachers. The study also concluded that male teachers were more tense and frustrated as compared to female prospective teachers.

A study by Kaur (2007)\textsuperscript{46} conducted in Delhi on Academic Achievement, Teaching Aptitude and the Personality Traits as the predictors of success in Elementary Teacher Training. A sample of 400-teacher trainees, were selected randomly from seven District Institutes of Education and Training of NCT of Delhi. The aims of the study were to study academic achievement at +2 levels in predicting success in elementary teacher training course in terms of achievement,

\textsuperscript{46} D.Kaur, “Academic Achievement, Teaching Aptitude and the Personality Traits as the predictors of success in Elementary Teacher Training”.(www.eric.edu.gov) Web 29 Sept 2010
teacher education rating and school teacher rating; to study the teaching aptitude in predicting success in terms of achievement, teacher educator rating and school teacher rating; to study personality traits as indicator of success in elementary teacher training course in terms of achievement, teacher educator’s rating and schoolteacher rating; to determine the relative predictive value of academic achievement, teaching aptitude and personality traits responsible for the success in elementary teacher training course. Results were shown that Academic achievement of student teacher at +2 level has high correlation with all the indicators of success in the elementary teacher education course except with school teacher rating. It contributed 23% in the predicting success of external examination of ETE course. Teaching aptitude of student teacher has high relationship with all the indictors of success in the ETE course. The components of teaching aptitude namely ‘Cooperative attitude’ and ‘Optimism’ have contributed significantly to all the indicator of success. Personality traits of student teachers have also high correlation with the entire success indicator in ETE course.
Sajan (2010)\textsuperscript{47} conducted a study in Kerala on Teaching Aptitude of Student Teachers and Their Academic Achievements at Graduate Level. A stratified random sampling was used for 1081 student teachers undergoing B. Ed. course in three different teacher education institutions of Kannur University and eight different teacher education institutions of Calicut University were selected for the study. The sample consisted of 272 male and 809 female student teachers. The objectives of the study were to measure the teaching aptitude of student teachers in general and with respect to five different dimensions; to make a dimension wise study of the teaching aptitude of student teachers with respect to their gender (Male/Female); to see whether there exist any significant relationship between the marks obtained at graduate level examinations and teaching aptitude of student teachers. The results have shown that majority of students have ample teaching aptitude. The female students’ were found to be significantly better than their male counter parts in teaching aptitude test. The academic achievements at graduate level examination have no substantial relation with aptitude in teaching.

\textsuperscript{47} K.S.Sajan. “Teaching Aptitude of Student Teachers and Their Academic Achievements at Graduate Level”. (www.ugc infonet.jccc.in) Web 15 Sept 2010
Another study was conducted by Jan Tasleema and Malik Muddasir Hamid (2012)\textsuperscript{48} on “Teaching Aptitude of Elementary and Secondary Level Teacher Educators”. The sample for the present study was 300 including 150 elementary teacher educators and 150 secondary teacher educators by using simple random sampling technique. For the measurement of teaching aptitude of elementary and secondary level teacher educators, Shamim Karim and A.K. Dixit’s teaching aptitude test battery was used. It was found that elementary teacher educators have more teaching aptitude as compared to secondary teacher educators on total score of teaching aptitude test battery. Among the eight dimensions, six dimensions were showing significant difference on teaching aptitude of elementary and secondary teacher educators.

\textbf{2.3 Conclusion}

Analyzing the review of related literature from abroad and from India it was found that some studies were conducted for Social Intelligence as well as Teaching Aptitude separately. However no study was found to be done on the relationship of Social Intelligence

\textsuperscript{48} Jan Tasleema and Malik Muddasir Hamid “Teaching Aptitude of Elementary and Secondary Level Teacher Educators”. Journal of Education and Practice ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)Vol 3, No 2, 201(www.iiste.org)
with Teaching Aptitude. Therefore there is a need to find out the relationship of these two factors since they are required for the success of a teacher in the teaching profession.