A Literature review is a summary of previous research on a topic. Literature reviews can be either a part of a larger report of a research project, a thesis or a bibliographic essay. It is usually a critique of the status of knowledge on a carefully defined problem. It is an attempt to interpret and synthesize what has been studied, researched, and published in the area of interest. Thus, it is an independent account to present the state of the art with regard to a problem. In fact, the review of related literature is essential to a well designed research study. It is generally the first step in the research process, and it can contribute valuable information to the research study. In the process of reviewing the literature, the investigator is alert for finding out research approaches in the area that have proved to be sterile. A literature review includes an overview of the subject, issue or theory under consideration and division of works under review may be categorized (e.g. those in support of a particular position, those against, and those offering alternative theses entirely) based on some criteria. Besides it also contains the conclusions which are most significant, convincing and make the greatest contribution to the understanding and development of the area of research.

The review of related literature serves manifold purposes. This is not to suggest that one enters the research literature blindly, hoping that a problem will materialize, rather one can sharpen the problem by a careful scrutiny of the related research. Lindvall (1959) suggested that this problem sharpening is the true purpose of the review of related research. It was further remarked that, if properly done, the review may make some contribution toward theory building. Thus the purpose of a literature review is to convey
to the reader what knowledge and ideas have been established on a problem and what are
the strengths and weaknesses of the research conducted earlier. The literature review
allows the reader to have up to date information regarding the state of research in the
field and familiarizes the reader with any contrasting perspectives and viewpoints on the
problem. Basically it purports to:

- place each work in the context of its contribution to the understanding of the
  subject under review.
- identify potential relationship between concepts and to identify researchable
  hypotheses.
- discover new ways to interpret, and shed light on any gaps in, previous research.
- identify variables that may influence the problem.
- learn how others have defined and measured key concepts.
- identify data sources, promising procedures and instruments that other researchers
  have used.
- point the way forward for further research.
- place one’s original work (in the case of theses or dissertations) in the context of
  existing literature.

Keeping in view the colossal importance of the review of previous research the
investigator has attempted to review the related research works conducted in the field of
visually challenged and divided it into two broad categories as follows:
2.1 Research on Psychological Factors

2.1.1 Studies related to Cognitive Behaviour:

Jan et al. (1990) described neurological, developmental and cognitive differences that exist between visually impaired, blind and sighted children. The findings revealed that visual impairment affects the total process of gathering and exchanging information and the effect is noticeable not only in motor skills, but also in cognition, language development and social skills. Mandaravalli (1991) attempted to analyze the cognitive development in visually handicapped children with specific reference to the concrete operational stage. 190 visually handicapped children studying in classes I to VII from special schools of Karnataka were selected for the study. Percentage analysis, CR values, Chi-square test of independence, contingency coefficient etc. were computed for the analysis. The study reported that visually handicapped children attained the concrete operational stage at a later stage as compared to the sighted children. There was no significant relationship found between the nature of handicap, type of management in their schools and sex of visually handicapped children and the concrete operational stage.

Mc Alpine and Moore (1995) examined the presence of false belief in visually impaired children. The performance of 16 visually impaired children (4-11 yrs old) on tasks designed to assess their understanding of false belief, a central aspect of social understanding, was recorded. False beliefs tasks using containers with tactile familiarity were used. To determine mental age, the Slossen Intelligence scale was completed by all students. Results indicated that the development of understanding of another’s false belief is delayed in children with severe visual impairments and the degree of vision loss is a key variable in that development. It is concluded that the quality of social interactions of
children with a visual impairment is affected both by the children’s level of understanding of mind and by the limited or nonexistent visual information even when the children acquired some understanding of mind. Corley et al. (1996) investigated the ability of eleven 6-10 years old children with low vision to recall black and white line drawings. The results of the study reported that unlike the 22 fully sighted children who were also tested, students with low vision recalled best when they were left to study the pictures without verbal intervention. Compared with fully sighted students, students with low vision named fewer of the remembered pictures correctly. Sengupta (1999) explored development of measurement related concepts among blind and partially sighted children as compared to their sighted counterparts. The sample consisted of 160 children (60 blind, 40 partially sighted and 60 sighted) within the age range 6-12 drawn from different residential and non-residential special schools and non-residential regular schools of Kolkata and Suburban areas. The results revealed that blind and partially impaired children were found similar to sighted children in continuous direct and indirect measurement, but they legged behind in conservation discrete measurement. Moreover blind children showed difficulty in relating time to their surroundings, but conservation of distance was found to be a difficult concept for the children irrespective of presence or absence of vision. No global deficit or excellence with respect to any particular group was observed. Pradhan (2003) conducted a comparative study of comprehension by blind students at the age of 5 to 14 years, the material is present through the Braille and on cassettes. Outcomes of the study revealed that at higher grades-IV to VIII (10 to 14 years) the improvement in comprehension of visually impaired students is significantly better through auditory mode as compared to tactile mode in subjects- Hindi,
mathematics, social studies and general science. Thus listening through the audio cassettes would be better medium of learning at higher grades. At lower grades-I to III (5 to 9 years) learning through recorded material would increase potentiality of comprehension in subjects- social studies, general science. Due to lack of concentration in this age group learning through Braille would be more comprehensible in subjects- Hindi, arithmetic than listening. Braille is the exclusive modality of effective and constructive learning for spelling and punctuation. Julka (2005a) studied the features of the cognitive architecture in the children with visual impairments by comparing them to the sighted children by making use of production system framework. The sample consisted of 38 totally blind subjects in the age range of 13-16 years from the special schools in Delhi and 56 sighted children studying in a school having the same syllabus, medium of instruction and age range. The students were administered the verbal portion of Wechsler Intelligence Scale for Children. Results showed a significant effect of the vision status on the functioning of the cognitive architecture. The children with visual impairments showed a slowness of functioning of cognitive architecture. However in spite of this, the children with visual impairments functioned at an equivalent level with the sighted children, within the framework of the present study. Puche et al. (2007) explored the inferential abilities of visually disabled children in a task presented in two formats, manipulative and verbal. The results showed that in the group of visually impaired children, just as with children with normal sight, there was a wide range of inference types. It was found that the visually impaired children perform slightly better in the use of inductive and relational inferences in the verbal format, while in the manipulative format children with normal sight perform better. These results suggest that
in inferential functioning of young children, and especially visually impaired children, the format of the task influences performance more than the child's visual ability. Monegato et al. (2007) compared the effects of congenital and late visual impairments on visuo-spatial mental abilities. This study compared participants who were congenitally visually impaired and those who became visually impaired later in life in a spatial memory task. The latter showed less efficient visuo-spatial processes than did the former. However, these differences were of a quantitative nature only, indicating common cognitive mechanisms that can be clearly differentiated from those of people who are congenitally blind.

2.1.2 Studies related to Emotional Intelligence

Elias (1991) remarked that teaching emotional and social skills is very important at school; it can affect academic achievement positively not only during the year they are taught, but during the years that follow as well. Moreover teaching these skills has a long term effect on achievement. Mayer and Solvey (1993) argued that IQ contributes only about 20% to success in life, and other forces contribute the rest. It can be inferred that emotional intelligence, luck and social class are among those other factors. Emotionally intelligent people are more likely to succeed in everything they undertake. Richardson and Evan (1997) explored some methods for teaching social and emotional competence within a culturally diverse society. The purpose was to help students connect with each other, in order to assist them in developing interpersonal and intrapersonal emotional intelligence, arguing that both these intelligence are essential for personal accomplishment. The study revealed that emotions, feelings and values are vital for a person’s well being and achievement in life. Martinez (1997) conducted a study on the
relation of emotional intelligence with selected areas of personal functioning. The results revealed that emotional intelligence is positively related with an adaptive form of goal-orientation and life satisfaction and it negatively influences depression. Furnham (2000) studied 260 participants, who completed a measure of trait emotional intelligence (EI) and estimated their scores on 15 EI factors on a normal distribution with 100 points as a standard deviation. Females scored higher than males on the social skill factor of measured trait EI. However, when the 15 factors of self estimated EI were combined into a single reliable scale and the participants’ measured trait EI scores were held constant, it was demonstrated that males believed they had higher EI than females. Most of the correlations between measured and self-estimated scores were significant and positive, thereby indicating that people have some insight into their EI. Correlations between measured and self-estimated scores were generally higher for males than females, and a regression analysis indicated that gender was a significant predictor of self-estimated EI. Mayer et al. (2001) conducted a study on emotional intelligence and giftedness. The result showed that those with higher emotional intelligence were better able to identify their own and others’ emotions in situations, and use that information to guide their actions and resist peer pressure. Emotional intelligence is highly correlated with the ability to actualize basic talents and skills, can distinguish between those who are less able to self actualize and is more important than cognitive intelligence for self actualization. Ciarrochi, Chan and Bajgar (2001) examined the emotional intelligence in adolescents. It was found that emotional intelligence in adolescents was higher for females than males and was positively associated with the skills of identifying emotional expressions, amount of social support and mood management behaviour. Lam and
Kirby (2002) studied a cohort of 34 undergraduate students at a university in the Western United States, and concluded that overall emotional intelligence contributed to individual cognitive-based performance and above the level attributed to general intelligence, and this relationship was positively supporting the effect of trait emotional intelligence on academic performance. Shanwal (2003) examined the correlates and nurturance of emotional intelligence in primary school children. 200 children studying in the IV standard of the Municipal Corporation of Delhi (MCD) schools were selected for the study. The results revealed that socio-cultural factors have definite influence on the degree of emotional intelligence. Girls have higher emotional intelligence than the boys. Petrides et al. (2004) reported that emotional intelligence was significantly related to scholastic achievement; with its effect having noteworthy implications for low IQ pupils. It was further reported that trait EI was differently associated with educational subjects considered in the study. Of interest was the finding that trait EI had no considerable influence in mathematics or science performance but it moderated the effect of IQ on English and overall GCSE (General Certificate of Secondary Education) performance. Pradhan, Bansal and Biswal (2005) examined the relationship between emotional intelligence and personal effectiveness. The study was conducted on 50 postgraduates (25 male and 25 female) from various departments of Delhi University. The study reported that there exists a positive relationship between emotional intelligence and personal effectiveness. The people with high level of emotional intelligence possess better profile of personal effectiveness. Bindu and Thomas (2006) investigated the nature and extent of the relationships that exist among two cognitive variables i.e. intelligence and creativity and two non-cognitive variables i.e. emotional intelligence and maladjustment.
among a sample of young adults (n=90). The results revealed that the two gender groups differed significantly in the mean scores on the variables and also in their inter-correlations. Maladjustment was identified as the most important predictor of all the other variables in the case of male sample. Emotional intelligence played a significant role in determining overall creativity and maladjustment in the female sample. The relationship between intelligence and creativity was found to be stronger in the female group than in the male group. Eniola (2007a) investigated the influence of two interactions – emotional Intelligence Tracing (EIT) and Self-Regulation Training (SRT) in remediating aggressive behaviour in adolescence with visual impairment. Forty eight visually impaired (ranging form total blind to partially sighted) participated in the study. The interaction effects revealed that participants treated with the two interactions EIT and SRT showed significant improvement in their aggressive behaviour pattern than counterparts in the control group. Eniola and Adebiyi (2007) examined emotional intelligence and goal setting in enhancing motivation to work among visually impaired students. The study employed a pre- and post-test experimental group design (N=32) in which participants completed the Work Value Inventory. The study was carried over a period of six weeks. The results obtained indicated that there was significant difference in the level of motivation of those who had experienced emotional intelligence and goal setting interventions. Eniola and Busari (2007) investigated the use of Emotional Intelligence (EI) in promoting self-efficacy of the visually impaired fresh students. Twenty eight visually impaired students (19 males and 9 females) participated in the study. The results indicated that the visually impaired students were unable to improve their self-efficacy with the use of emotional intelligence. Adeyemo (2007) studied moderating influence of
emotional intelligence on the link between academic self-efficacy and achievement of university students. The participants of the study were 300 undergraduate students at the University of Ibadan, Nigeria. The results of the study demonstrated that emotional intelligence and academic self-efficacy were significantly correlated with academic achievement. Subramanyam and Rao (2008) aimed at assessing the impact of gender on emotional intelligence and academic achievement of secondary school students. The investigators concluded that there was no significant difference with regard to the impact of gender on emotional intelligence and academic achievement. Arunmozhi and Rajendran (2008) made an attempt to assess the influence of age, marital status, type of family, community and family status on the emotional intelligence of 305 women self help group members. The investigator concluded that the self-help group members do not differ in their emotional intelligence based on their age, marital status, type of family community and family status. Sharma (2008) conducted a study on alienation, frustration and mental health in relation to emotional intelligence of college students with visual impairment and normal vision. The investigator found a positive relationship between emotional intelligence and mental health of college students with visual impairment whereas a negative relationship of emotional intelligence with alienation and frustration. Panda (2009) studied emotional intelligence of visually impaired adolescent girls (N=100) in relation to their level of aspiration and educational achievement. The findings of the study revealed that blind girls studying in inclusive setting have more positive and better emotional intelligence than their counterparts studying in exclusive setting whereas no significant difference was found on the level of aspiration. Moreover emotional intelligence has been found positively correlated with level of aspiration and
educational achievement of visually impaired adolescent girls. Rani (2011) compared emotional intelligence and academic achievement of visually disabled students between integrated and segregated schools and correlated both the variables for two settings separately as well as for total sample irrespective of school setting. The investigator concluded that visually disabled students studying in integrated school setting are emotionally more intelligent than their counterparts in segregated setting. Integrated students academically performed at par than segregated peers. Moreover the relationship between emotional intelligence and academic achievement was found significant for two schools separately as well as for total sample irrespective of school setting.

2.1.3 Studies related to Language Development

Cornelissen et al. (1991) asked children of mixed abilities to read 3 single word lists matched for linguistic complexity. The visual component of the task was made harder by reducing the print size in each new list. The reading errors made by 45 children (aged 7 years to 11 years) who did not have a visual impairment were compared. The visually impaired children’s pattern of reading errors changed as their vision was stressed by the reduction in print size; they made more non-word errors (word errors that could not be found in a Standard English dictionary). This finding suggests a direct link between the efficiency of visual processing and the accuracy of reading. Nada and Michael (1995) compared congenitally blind and sighted children on use of language in simple classification tasks. Two groups of classification tasks, verbal and figurative were presented to 30 congenitally blind and 30 sighted students. The results showed that the blind students performed the classification tasks with figurative base less successfully than did their sighted counterparts. Although the younger blind children were
significantly less efficient on both groups of tasks and on the vocabulary test. Bickford and James (2004) studied the preferences of individuals with visual impairments for the use of person-first language and concluded that professionals in the fields of education and rehabilitation of people with disabilities have adopted person-first language, that is, language that subordinates the disability to the individual. Mallineni, et al. (2006) conducted a study to determine (a) whether children with visual and additional impairments show any non-verbal behaviours, and if so what were the common behaviours; (b) whether two rehabilitation professionals interpreted the non-verbal behaviours similarly; and (c) whether a speech pathologist and a rehabilitation professional interpreted the behaviours similarly. Twelve children, aged from two to eight years, with visual and additional impairments, were videotaped during their play sessions to observe their non-verbal behaviour. A rehabilitation professional observed the tapes and identified and interpreted 131 non-verbal behaviours. The study found that the children showed 33 common behaviours. There was 98.4 per cent agreement between the two rehabilitation professionals, and there was 88.5 per cent agreement between the first rehabilitation professional and the speech therapist.

2.1.4 Studies related to Self-Concept

Obiakor and Stile (1990) compared the self-concepts of visually impaired and normally sighted middle school children. The self-concepts of 61 visually impaired and 229 normally sighted American school children in Grades VI, VII, and VIII were measured with the Student Self-Assessment Inventory which assesses children's self-knowledge, self-ideal, and self-esteem as related to physical maturity, peer relations, academic success, and school adaptiveness. The results of the study revealed that visually impaired
students scored higher than normally sighted children on 5 of the 12 SSAI subscales, refuting the notion that visually impaired children have poorer self-concepts than normally sighted children. **Pradhan (1993)** conducted an ex-post-facto study to investigate the impact of the type of school setting (integrated and segregated), type of handicap (visually and hearing) and the degree of handicap (partial and total) on the self-concept and adjustment of handicapped children of age 9-13 years. The investigator reported that in general, handicapped children studying in integrated and segregated setting did not differ from each other on their self-concept and overall adjustment. However, the visually handicapped children possessed better self-concept and overall adjustment in segregated setting while hearing handicapped children possessed better self-concept and adjustment in integrated setting. **Dorothy and Kielly (1994)** compared the self concept of teenage learners who were visually impaired and enrolled in public day schools with those who attended a residential school. The target population was those individuals with a primary functional visual impairment in the age range of 12-18 years. Seventeen students at the Iowa Braille and Sight Saving School were the residential population where as fifteen visually impaired students who were receiving support services of the itinerant teacher for the visually impaired participated as the public school population. Piers-Harris Children’s Self Concept Scale was administered. No significant difference was found regarding the impact of educational placement on self-concept and relationship between learning medium and self-concept among visually impaired youth. **Reddy and Rajguru (1994)** conducted a study to find out the significance of differences between totally blind and low-vision children with regard to their self-concept. A significant difference was found between the mean of totally blind and low vision
children with regard to their self-concept scores. Totally blind children have higher self-concept than the low-vision children. The self-concept of visually impaired was positively correlated with their achievement. The socio-economic status of visually impaired children had least impact on their self-concept. Viyas (1995) studied certain personality traits of blind students as compared to sighted students. One of the objectives was to compare the self-concept of blind students with those of sighted students. The sample comprised of 360 blind students who were studying either in the special blind schools or who joined integrated programme. Also 360 sighted students were included in the sample. Self-concept Inventory by D.A.Uchat was used. The data were analyzed with the help of t-test. The investigator concluded that blind and sighted students were similar in respect of self-concept. The self-concept of blind female students was higher than the self-concept of blind male students. Neelam (1997) studied self concept of visually impaired students in relation to their creative potential and locus of control. 200 visually impaired students (100 from private and 100 from government schools) were investigated. Students studying in government schools with high socio-economic status and positive self concept were found to be more fluent, more flexible in their responses as compared to those studying in private schools, while no significant relationship was found between self concept, originality factor of creativity and type of school. Christy et al. (2002) analyzed the self perceptions of children with visual impairments in an institutional based prospective study. Using a stratified random sampling technique, a detailed questionnaire was administered to 50 subjects for expression of needs and wants, and expression of preferences and decision making. The subjects had no significant problems in expressing moods and feelings, preferences and decisions. Some of the
subjects showed variation and problems in expressing sympathy (46%), the choice of clothes (34%) and preferences for environments and play items (50% & 54% respectively). Regarding the expression of needs and wants there were relatively few problems. It was concluded that self perceptions were stronger and occurred more often in childhood than at any other period of life. Sharma (2002) investigated the self concept and self esteem in blind students attending integrated schools and special schools. A sample of 104 blind children from the two settings was matched for age, sex, intelligence and SES. It was concluded that the students (boys and girls together as well as separately) from integrated setting did not differ significantly from their counterparts in special school setting on total self concept (F=2.94). However on social and temperamental dimensions of self concept the two groups differed significantly (F=17.28, 9.21). On self esteem no significant difference was found between the two groups of blind students (F=3.06). Boys and girls in the two settings were also found to be not significantly different. Cambra and Sillvestre (2003) explored the relationship between the students’ self concept and social integration in comparison with their non-special needs classmates. The study sample was made up of 97 special needs students (hearing, motor, visual, and learning and mental retardation problems) integrated in a mainstream school in Catalonia (Spain). The results indicated that the special needs students had a positive self-concept although it was significantly lower than that of their counterparts, especially in the social and academic dimensions. Lifshitz et al. (2007) examined self-concept, adjustment to blindness, and quality of friendship among adolescents with visual impairment. 40 adolescents with visual impairment (20 in public schools and 20 in a residential school) were compared to those of 41 sighted adolescents. The findings of the study reported a
similar self-concept profile for sighted adolescents and adolescents with visual impairment, although the scores of the visually impaired participants were higher in all domains. Naseema and Usha (2007) intended to measure whether there is any significant difference in the self concept, school adjustment and achievement in mathematics of visually impaired and normal secondary school pupils in the integrated system. A sample of 500 normal and 147 visually impaired pupils studying in IX standard in the integrated system of education, in the state of Kerala was selected. Results of the study revealed a significant difference at 0.01 level, between visually impaired and normal pupils in respect to their self concept, school adjustment and achievement in mathematics. The mean scores of normal pupils were higher than visually impaired on self-concept, school adjustment and achievement in mathematics. Reema (2010) conducted a study of relationship between self-concept and adjustment of visually impaired adolescents studying in inclusive and special schools. The findings of the study revealed that the development of self-concept was better in inclusive schools. It was even better in the case of male adolescent than the female ones. The relationship between self-concept and level of adjustment in the case of female adolescents was better in inclusive school settings than their male counterparts. This trend was reversed in the case of relationship between those aspects in special schools. Were et al. (2010) studied gender differences in self-concept and academic achievement among visually impaired pupils in Kenya. A sample of 262 respondents (152 males and 110 females) was drawn from the population by stratified random sampling technique. Two instruments were used in this study: Pupils’ self-concept and academic achievement test. The t test was used to test the relationship between self-concept and achievement. The data was analyzed using
Analysis of Variance (ANOVA) structure. Results of the study revealed that there are gender differences in self-concept among visually impaired pupils. Girls scored higher than boys in self-concept and hence in achievement test.

2.1.5 Studies related to Anxiety

Abdi and Zaidi (1991) attempted to determine the significance of difference between general anxiety and test anxiety scores among 45 visually impaired children. An Indian adaptation of general anxiety scale and Sarason’s test anxiety scale for children were employed for the study. General anxiety was found to be significantly higher than test anxiety among the children in the sample indicating that visually impaired children did not have any specific fear or threat in test situations. Milgram and Toubiana (1999) investigated the relationship between academic anxiety, academic procrastination in children and parental involvement in their children’s school work. Self reported measures were administered to 354 Israeli adolescents and their parents. It was concluded that the students were less anxious about homework than the other academic assignments. Older adolescents were less anxious about their schoolwork overall and procrastinated more than younger on homework. Parents of late adolescents were less involved in their children’s schoolwork than parents of younger adolescents. Murthy and Kulshreshtha (1999) attempted to study the influence of academic anxiety on academic achievement of students studying in two management school systems (government and private), on a sample of 199 class IX students comprising boys and girls. The investigator concluded that academic anxiety and academic achievement were inversely and significantly related. Boys and girls, irrespective of their management schools, did not differ on academic anxiety, while the government and private school students, irrespective of sex
did differ significantly in favour of the private school students. **Chapell et al. (2005)** found that differences in levels (low, moderate and high) of test-anxiety had produced significant differences in GPA scores among students. The students with a low test-anxiety had a higher GPA than the students with a moderate and higher test-anxiety level (p=.001) and students with a moderate test-anxiety had a higher GPA than the students with higher test-anxiety (p=.05). **Dwivedi and Gunthey (2005)** conducted a study to find the effect of medium of instruction on academic anxiety of school students. The sample for the study consisted of the students of different schools from Jodhpur city. It was divided into two categories. In first category there were 150 boys and 150 girls from Hindi medium schools. Another category consisted of 150 boys and 150 girls from English medium schools as subjects. The tool used for the study was Academic Anxiety Scale for Children (AASC). The findings of the study revealed that academic anxiety level of English medium students was significantly greater than that of the students of Hindi medium. **Leung and Sukman (2006)** examined the relationship between academic stress, children’s anxiety and academic attainment in senior primary school children in Hong-Kong. Findings of the study revealed that girls were more disturbed by “academic inefficacy and fear of failure” and boys were more affected by “expectation and demands” from others and academic demands and overload. Moreover time spent by parents communicating with their children, parental emotional, informational and instrumental supports and children’s resourcefulness were beneficial to childrens’ emotional and academic adjustment. Emotional support lowered childrens’ anxiety while protectiveness brought about the opposite outcome. **Jain and Jain (2007)** examined the role of type of study (coaching attending vs. self studying) and perceived parental
encouragement in determining the academic anxiety of adolescents. A large sample of 400 (200 coaching attending and 200 self studying) adolescents from the age range of 16-18 years was selected for the study. Results revealed that the adolescents with greater perceived parental encouragement had lesser academic anxiety. Interaction of type of study, gender and parental encouragement also had significant effect on academic anxiety. Eniola (2007b) examined effects of stress inoculation training on the anxiety and academic performance of adolescent with visual impairment. The study employed a pre and post –test experimental group design in which the participants’ completed test anxiety scales. The study was carried out over a period of eight weeks. The result showed that stress inoculation training had positive impact; there was a significant difference in the effect of treatments given to the adolescents with visual impairment. Chaudhary and Phogat (2010) studied adjustment of visually challenged adolescents in relation to their anxiety and degree of impairment and concluded that low anxious totally visually challenged males are better adjusted than high anxious males while there was no significant difference between low anxious females and high anxious females, low and high anxious partially visually challenged males and low and high anxious partially visually challenged females on adjustment.

2.1.6 Studies related to Attitude

Mukhopadhyay and Sharma (1990) identified teaching competencies specifically for integrated education of the disabled children so that special support can be provided for these children in a general classroom. It was found that teachers had a positive attitude towards equal educational opportunity for disabled children in integrated classrooms. It was found that more importance was given to competencies such as setting of a social
goal followed by planning teaching activities. **Panda (1991)** studied attitude of parents, teachers and community members towards disabled children. The sample consisted of 100 parents having disabled children, 100 teachers and 100 community members equally drawn from male and female subgroups. The findings revealed that attitude depends upon the sex of the people whether they are parents, teachers or community members. In general, females showed favourable attitude towards normal, hearing impaired, visually impaired and severely mentally retarded children. **Geossling (1994)** investigated the self–reported experiences of integration facilitators working in general education classrooms. These teachers referred to stay back in integrated educational system rather than segregated instructional setting. **Quarrie (1994)** conducted a study regarding the perceptions of special education teachers towards integrated educational settings for severely challenged students. It was found that teachers strongly supported integrated education setting for severely challenged students from academic, social, psychological and moral perspectives. Teachers felt that integrated educational settings have more advantages than disadvantages for such students. **Kahle (1995)** indicated in a study the significant difference in the perception of teachers towards the integration of mildly and severely disabled students. The continuum of special education services, inclusion classrooms, resource room and special education, self contained classrooms were needed to meet the needs of disabled students. **Tungaraza (1995)** conducted a study regarding attitude of teachers towards integration. Analysis of variance reveals that there were no significant differences in attitudes of special, general and head teachers related to age, gender and years of experience. In general, teachers from all these groups agreed with the principle of integration but did not think it was appropriate to integrate children whose
disabilities interfered with academic learning. Domanski (1997) found that a disability specific preparatory course can be pivotal in improving the attitude of pre-service teachers about serving the disabled students. Results also indicated small but significant changes in the attitude of pre-service teachers about serving students with disabilities. The pre-service teachers’ perception about their ability and knowledge to teach disabled students improved significantly during the training period. Sudarshan (1999) collected information regarding the attitude of resource teachers (120), regular classroom teachers (120), school administrators (50), visually disabled children (300) and non-disabled children (300) towards integrated education programme for visually disabled. The findings revealed that the visually disabled children, resource teachers, secondary and higher secondary school administrators had more positive attitude than that of non-disabled children, regular teachers and primary schools administrators respectively towards integrated education programme. Verma (2004) aimed to study the role of parent-teacher associations to promote inclusive education. The study revealed that 97% of the parent-teacher associations could bring a change in the attitude of communities for the education of children with disabilities. Currie (2005) investigated the effects that teachers’ attitude and training have on the academic achievement of included special needs students. An attitude inventory was used to measure the attitude of 45 general education teachers on educating special needs students. The Gateway test was used to measure the academic achievement of students in English, Mathematics and Science test scores for included students. The findings indicated that the teachers’ knowledge of the inclusion process and their attitude towards inclusion were statistically significant predictors of their students’ achievement on the Gateway Test. Harrison (2006)
investigated perceptions of parents and teachers of children with visual impairments. Parents’ needs for Braille literacy, support and information were compared with current Braille teacher competencies, practices, and preferences for Braille programming and service provision. 19 parents and 31 teachers indicated their perceptions of the adequacy of their own Braille knowledge, perceptions about the children’s Braille education and parent insight into their own willingness to learn Braille. The study revealed that the teachers agreed with the parents in many areas especially relevant to parent Braille literacy issues. Parents indicated satisfaction with the teachers of visually impaired and their child education. Teachers described themselves as having strong competencies, practices and preferences in Braille education. Donahue (2006) examined the secondary schools principals’ belief regarding the placement of students with different categories of disability into general education classrooms. Findings revealed that principals rated most highly the statement that students with and without disabilities benefit from inclusion. With regard to placement, 94% of the principals surveyed and made clear that they would fully include students with specific learning disabilities for the majority of the school day. Bruce et al. (2007) conducted a survey to examine blind and partially sighted people’s perceptions of inclusion by family and friends. Findings demonstrate a complex picture; reporting high levels of severe lack of social support in comparison to the general population especially among men, and lack of social support expressed extensively by those who were rarely or never visited by family or neighbours. Levels of reported social support were not related to the degree of severity of sight loss or age; and economically inactive respondents of working age reported lower levels of social support than those who were working. Rangaswamy and Bhavani (2008) studied the impact of disability
on the family and needs of families of disabled children. The results of the study revealed that social and economic needs of families with a disabled child are high, but remain largely unmet. The parents with disabled children also have higher levels of stress and lower levels of well being than parents with normal children. The degree of retardation has specific impact on mothers in relation to impact and needs. Choudhuri and Pandey (2008) designed a study to elicit the views of students with visual impairment (studying in special schools) on their integration. Participants were 29 students in the age range of 14 – 25 years. A questionnaire made in Braille was used to know their views. It attempted to know from them whether they wanted to have i) general interaction with non-disabled students, ii) academic integration iii) co-curricular integration. The finding of the study revealed that the majority of the students want to meet, interact, study and participate in co-curricular activities with the non-disabled students in general schools. Kaur (2010) investigated the perception and attitude of the elementary school principals and teachers towards inclusion of students with disability in the MCD schools of Delhi. The study analyzed data of case study of 20 MCD schools, 49 teachers dealing with CWSN in these schools, 72 observations of children with special needs and 20 principals of these schools. The tools used for the study were attitude scale, survey, and interview schedule and classroom observations. The findings of the study revealed that the primary school principals’ perception about children with special needs was, in part related to their attitude towards inclusion. Most of the principals showed favourable attitude towards inclusion. The principals threw light on non availability of effective infrastructure facilities in schools. The teachers believed in inclusive education. The in-service training programmes conducted for the teachers proved very beneficial.
2.1.7 Studies related to Miscellaneous Factors

Tangri (1990) attempted to study the temperament of handicapped children and the impact of a handicapped child on the family. The findings showed that handicapped children were less sociable, emotional, energetic and distractible than normal children. Moreover no significant difference was found on orientation towards child-rearing, knowledge of handicap and attitude towards handicap among parents of handicapped and normal children but parents of normal children had better marital adjustment than those of handicapped children. Troster and Brambring (1992) conducted a study on early social-emotional development in blind infants to find out the impact of blindness on social and emotional development during first one year of life. The level of social and emotional development was compared in blind and sighted infants. Blind infants exhibited a more limited repertoire of facial expressions and less responsiveness. They less frequently attempted to initiate contact with their mothers or comply with simple request and prohibitions than sighted infants. Lal (1992) attempted to find out the differences in vocational interest, ten psychological needs, attitudes and anxiety level of the blind and the sighted boys and girls and to find out the difference in mutual perception regarding the attitudes of blind and sighted peers towards each other. The sample comprised 300 blind and sighted boys and girls of standards IX to XII, institutionalize in schools for the visually handicapped in Delhi. The various tools used included Vocational Interest Record, Meenakshi Personality Inventory, Rating Scale, Sinha’s Anxiety Scale and a scale for measuring mutual perception. The results of the study revealed that (i) The blind boys and girls and the sighted boys and girls differed significantly on all aspects of vocational interest record. (ii) Sighted and blind boys,
sighted and blind girls, sighted boys and blind girls differed significantly on all the ten needs of Meenakshi Personality Inventory. (iii) All the five groups differed significantly on anxiety. (iv) The blind and the sighted did not differ significantly on their mutual perception. Beaty and Alan (1994) analyzed psychological factors and academic success of visually impaired college students. Assessment of psychosocial and academic adjustment of 30 undergraduates with visual impairments and 43 non-disabled undergraduates revealed no inter group differences on psychosocial adjustment. The mean grade point average of subjects with visual impairments was higher than that of non-disabled subjects. Troster et al. (1996) studied the daily routines and sleep disorders in visually impaired children. 108 girls and 157 boys with visual impairment were classified into two groups according to degree of impairment. Sleep behaviour was assessed with the Beilefeld Parents Questionnaire for Blind and Sighted Children. Results showed that blind subjects had significantly more sleep disorder than partially sighted subjects. Moreover, children with irregular daily routine tend to have sleep disorder. Satapathy and Singhal (2000) investigated the differences in stress, self-esteem, adjustment level and academic performance between visually and hearing impaired secondary students in New Delhi. Hopkin’s Symptom Cheklist for stress, Basavanna’s Self-Esteem Scale, and Meadow-Kendall Social and Emotional Adjustment Scale were administered to 79 visually impaired and 80 hearing impaired students of classes VIII and X. The results revealed that visually impaired students were less stressed, had higher self-esteem, higher level of adjustment and better academic performance than the hearing impaired students. Further hearing impaired adolescents exhibited more behavior problems than visually impaired adolescents. Pervez and Yaqub (2001) identified
sources of well being, happiness and daily hassles among blind institutionalized children. The sample consisted of 30 (20 male and 10 female) institutionalized children with visual perceptual difficulties. Findings showed that male and female blind children did not differ significantly on general well being. The level of happiness of blind children was very much associated with their level of life satisfaction as whole. It was revealed that misplacing and losing things because of blindness was the major problem faced by a large number of blind children in their daily life routine. **Chaturvedi (2002)** studied psychological makeup of visually impaired children. The results of the study concluded that prolonged deprivation significantly influence the positive self-evaluation, integration of personality and total mental health of visually impaired children. Moreover highly deprived visually impaired children are having poor positive self-evaluation, poor integration of personality and low status of mental health. **Sharma et al. (2002)** investigated the type and extent of challenging behavior in visually impaired students in three residential schools. 123 students from boys only school, 88 from girls only and 125 from co-educational school were selected for the study. The findings deduced that among the 336 visually impaired children only 24% were identified as having challenging behaviours. The most frequently reported challenging behaviours were withdrawal (17%), hyperactivity (15%), stereotyped mannerism (12%), irritability (12%), aggression (10%), inappropriate speech (9%) and self injury (1%). **Satapathy and Singhal (2003)** examined stress and behavior problems among visually impaired and non-impaired adolescents. Nature of relationship between these two variables was also analyzed. The findings revealed that non-impaired adolescents were more stressed and exhibited more behavior problems than the visually impaired. Correlation between stress and behavior
problems was found significant to visually impaired as well as non-impaired adolescents. **Gairola et al. (2005)** compared altruistic behavior of the visually handicapped and sighted males and females. The sample consisted of 360 visually handicapped and sighted males and females. Altruism scale by S.N Rai and Sanwat Singh was used for data collection. A 3x2x2 (Congenital Blind, Acquired Blind, Sighted; males and females of the two age groups i.e.13-17 yrs and 18-22 yrs) factorial design was followed. The results revealed that there was a significant difference between altruistic behavior of congenital blind, acquired blind and the sighted. The congenital blind were found to be more altruistic than the other two groups. Sighted were found to be less altruistic than congenital blind but more altruistic than acquired blind. Significant difference was found between males and females in favor of females. **Tarannum and Khatoon (2009)** attempted to study certain demographic variables as determinants of self-esteem and emotional stability of visually challenged students. The sample constituted 100 visually challenged students out of which 63 were boys and 37 were girls belonging to the age range of 5-18 years. The data collected were analyzed statistically by using stepwise regression analysis. Out of the demographic variables of gender, age, class, family system and area of living, only gender emerged as the significant predictor of emotional stability of visually challenged students and none of the demographic variables emerged as predictors of self-esteem of these students.

### 2.2 Research on Non-Psychological Factors

#### 2.2.1 Studies related to School Achievement

**Nisar (1990)** found that congenitally blind were superior in academic performance when compared with adventitiously blind. Academic achievement of both the groups was not
found affected by psychological problems as well as extroversion. **Effendi (1993)** conducted a study on the visually disabled school going children in relation to their frustration and school achievement and concluded that frustration affects the school achievement of the visually disabled students. **Viyas (1995)** studied certain personality traits of blind students as compared to sighted students. One of the objectives of the study was to compare the academic achievement of blind students with those of sighted students. 360 blind students and 360 sighted students from grades VIII to X were included in the sample. The results of the study reported that sighted students were possessing higher academic achievement than blind students. Academic achievement of blind male students was higher than blind female students. **Khan (1999)** remarked that visually challenged were lower in mathematics but higher in literature and their recall power was found to be superior. The investigator concluded that retardation in academic status may be because of imbalanced personality of the child. Full participation and equality would be helpful in minimizing the personality disorders and low academic status due to confinement in special environment. **Chandra (2001)** examined the interests, aspirations and achievements awareness of visually impaired students at secondary school level in Andhra Pradesh. Two hundred seven students were selected through multistage random sampling from VIII, IX X classes. The data were analyzed with the help of content analysis technique. The study revealed a significant difference in opinions on some of the issues and majority of them had similar opinions on aspirations, interests and achievements. It was concluded that region, caste and income play a vital role in giving opinion on interests, aspirations and achievements but sex played a little role on responses in some aspects. **Sheikh (2002)** after nullifying the effect of
intelligence attempted to locate the independent variables- self acceptance, security-insecurity and frustration that affect the school achievement of the blind students. Data had been collected from different regions of Uttar Pradesh. 200 blind students (100 male and 100 female) were included in the sample. Multiple regression analysis was employed for finding out the determining values of independent variables. The results showed that the lone variable that determines the achievement of the students is frustration, whereas the rest of the factors do not have any impact on their school achievement. Sharma (2005) conducted a study to unfold the prognostic value of family climate and self esteem for academic achievement of visually disabled students after covariating the influence of study habits. The sample consisted of 182 students studying in class 6-9 in residential schools. Out of the total sample 60 high and 60 low achievers were selected. The findings revealed that the family climate and self-esteem of visually disabled children play a very vital role in a child’s academic life. Julka (2005b) attempted to understand the problems that students with visual impairments encounter while gaining access to mathematics curricula at the primary level. Using NCERT textbooks as exemplary material, 579 students with visual impairments, studying in classes from one to fifth, were administered a questionnaire to rate the various topics as least, average, and most difficult. Also teachers were interviewed regarding the difficulties these students face while engaging in mathematics. The results of the study showed that very few topics that also at a higher level of primary schooling are considered to be most difficult by these students. Erin et al. (2006) compared the test scores and time required by high school students who were blind, sighted or have low vision to complete tests administered in written and oral formats. The qualitative results showed that the blind students performed better on
multiple choice tests in Braille and needed more time while taking tests in Braille. Khan (2006) attempted to find out determinants of academic success of visually challenged children in a secondary school and concluded that educational aspiration and academic success are positively and significantly related with each other. Moreover vocational preference also played an important role in determining academic success. Klinkosz et al. (2006) compared academic achievement by sighted versus visually impaired students at Polish universities and analyzed potential between group differences on various personality traits and their impact on academic grades. Although there was no main effect of visual status on academic achievement, there were some significant differences between the personality traits of the visually impaired and sighted groups. Naseema and Usha (2007) conducted a study to measure whether there is any significant difference in the achievement in mathematics and in the psychological variables like school adjustment and self-concept between the visually impaired and the normal secondary school pupils. A sample of 500 normal and 147 visually impaired pupils studying in IX standard in integrated system of education was selected. Results revealed significant difference at 0.01 level, between visually impaired and normal pupils in respect to their school adjustment, self concept and achievement in mathematics. Normal pupils were better in the case of all the three variables. Chauhan (2010) explored the relationship between academic self-esteem and educational achievement of the visually impaired adolescents studying in integrated and residential educational setting. The findings revealed that high academic self-esteem helps in increasing educational achievement or vice versa, however this correlation was positive but not significant. Singh et al. (2011) studied academic achievement of visually impaired students in relation to their socio-demographic
variables, study habits and study related correlates. The findings of the study revealed a significant correlation between academic achievements and study habits of visually impaired students. The association between academic achievements and the age, grades, socio-economic status and parental education of visually impaired students were found statistically significant. The study related variables like attitude towards teachers, education and examination, home assignments, self-confidence, concentration and coping with mental conflicts were also found significantly related to academic achievements of visually impaired students.

2.2.2 Studies related to School Ambiance

Rai (1991) attempted to explore effective cooperative learning strategies for promoting a constructive relationship, positive attitudes and integration between disabled and non-disabled peers in the regular classroom. It has been found that cooperative-learning experiences promote a closer relationship between the disabled and the non-disabled. When learning situations are structured cooperatively they work together, interact in positive ways, feel supported and encouraged to achieve. Lali (1995) conducted a study to compare the scholastic performance of the visually handicapped pupils studying under the integrated system with that of the normal pupils in classes VIII, IX and X in secondary schools of Kerala. The study reported that the children with visual impairment performed at par with their non-disabled peers in integrated setting. Follansbee et al. (1997) remarked that there is no significant difference between integrated and non integrated classrooms in general. However, a significant difference was found in favour of integrated classroom, in which students from integrated classroom outperformed students from non inclusive class room in at least one out of nine courses. The study further
revealed that there was no significant difference in overall satisfaction between two groups of students and two groups of parents. The study came out in favour of inclusive environment even for non-disabled students. Punani (1997) made comparative evaluation of the effectiveness of different modes of education of the visually impaired children. The sample comprised of total of 130 visually impaired children, 50 children were from integrated education, 26 from semi-integrated education and 54 from residential schools. The study found integrated education to be more effective than residential education. Moreover semi-integration was most effective mode in enrolling these students. Mani (2000) reported that the inclusive education programmes increase the enrolment of disabled children in both rural and urban areas. Approximately 80,000 children with disability were educated in the 18,000 general schools of the country. The retention rate among the disabled children has been reported high as compared to the non-disabled children. Parents of children with special needs prefer inclusive education programmes for their children rather than sending them to special schools. Uppal and Dey (2001) concluded that education in segregated or special schools does not provide support for all round development of the individual with disabilities. Deb et al. (2002) compared the efficacy of the integrated education system with that of the special education system. The study included a sample of 101 visually handicapped children from two pioneer residential schools for the blind population in Kolkata. The results indicated that the students undergoing integrated education were more ambitious than those undergoing special education. Moreover the students of integrated education developed a broader outlook towards life. Agarwal (2004) compared the academic skills of visually impaired students in three settings i.e. special, semi-integrated and integrated
school setting. The results of the study revealed that semi-integrated setting was most effective in imparting academic skills and the visually impaired students in this particular setting were more efficient both in special academic skills like Braille reading as well as general academic skills such as problem solving, reasoning, information providing and language comprehension and usage. A survey made by The Hindu (Feb 01, 2004) proved that the response of the concept of integrated education, wherein disabled students pursue their education in normal schools has been encouraging in Madurai district. Quite a number of students were doing their post-graduation and few had achieved academic distinction in M.Phil. and Ph.D. The students on their part come to realize that their potential is equal and in some cases, more than normal students studying in mainstream schools. Dawn (2005) conducted a comparative study of self esteem of blind students in integrated and non-integrated school settings. A total of 30 blind students and 15 sighted students within the age group of 8-12 years were included in the study. The results revealed that although no significant difference was found in the self esteem between both the groups of blind students as compared to that of the sighted, the home factor appeared to play a significant role in shaping their self esteem. Redmon (2007) investigated the effectiveness of full inclusion on the academic achievement of students with disabilities in grades 3-6 over a three-year period. The dependent variables in the study were students’ reading/language and math achievement test scores while gender, socioeconomic level and school attendance were independent variables. The research involved the total sample of 107 students. 87 were involved in the inclusion program and 20 students continued to receive support services in a pullout resource program. A causal-comparative research design using quantitative data was implemented in this study and
statistical significance was determined by utilizing the unpaired t-test, the two-way ANOVA and the Mann-Whitney U-test at the .05 level of significance. Statistical significance was found for socioeconomic status on the math and reading/language achievement of students who received extra reading instruction. There were no statistically significant difference found for math and reading/language scores for students in the inclusion program and students in the pullout resource program based on students’ gender, socioeconomic status and school attendance. Afrodili et al (2007) conducted a study to find out whether the placement of pupils with special educational needs within mainstream schools has an impact on academic achievement and social outcomes for pupils without special education needs. The findings suggest that there are no adverse effects on the pupils without special education needs of including pupils with special needs in mainstream schools. Rani (2011) compared academic achievement of visually disabled students in integrated and segregated school settings. The results of the study revealed that students placed in integrated schools performed significantly better than their counterparts in segregated schools.

2.2.3 Studies related to Teachers

Mel (1990) developed a teacher education resource pack for the teachers of special need children. The aim of the study was to review teachers training in context of variety of country systems. The enquiry was carried out by means of questionnaires, one of which was completed by 100 teachers in each country, and a case study provided by each country showing current practices. Nevertheless some general trends and messages do arise from the findings of this study specifically three major priorities seem to be shared by many of the countries in the sample. These were (1) the provision of compulsory
education for all children in the population (2) the integration of the challenged children into ordinary schools. (3) Finally the upgrading of teachers training as a means of achieving first two priorities. **Muruganandam (1990)** attempted to study whether it is possible to develop a teaching-learning package in science for effective teaching of science to visually impaired children. The findings of the study revealed that the visually impaired children learned more science concepts when they were taught through the specially prepared teaching-learning materials. Moreover the learning package on science teaching for visually impaired children was found effective. **Billibngsley et al. (1992)** investigated into the predictors of commitment, job- satisfaction and intent to stay in teaching. A comparison was made among general and special educators. Results suggested that work related variables such as leadership; support, role conflict, role ambiguity and stress are better predictors of commitment and job satisfaction and significant predictors of intent to stay in teaching. **Gupta and Singh (1994)** studied the status of science teaching in Indian schools for the visually impaired children. 189 integrated and 407 special schools from all over India were used as sample. Researchers concluded that the quality of science teaching for visually impaired was much below than the expected standards in both types of schools. **Julka (1998)** studied teacher empowerment and successful mainstreaming of visually impaired children. The study aimed at examining the various issues and the role of regular and special teacher related to the education of the visually impaired children in mainstream schools. On the basis of the findings the researcher concluded that if inclusive education is to be the focus of educational policy in near future, the reciprocal role of regular and special teachers would be crucial. **Zaveri (2001)** developed an awareness module on inclusive education for
students with disabilities, for administrators and teachers of general schools. The module was implemented using “printed media approach” and “interactive approach”. The results indicated equal effectiveness of both the approaches for creating awareness. The teachers felt inclusion to be desirable but not feasible. Factors such as large class size, vast curriculum content, lack of training and awareness to deal with the handicapped population, rigid curriculum and time framework seem to be pervasive in present educational system irrespective of the type of the school (Private or Government aided) and irrespective of the level of the school (Elementary or High School). These factors seemed to be having a critical influence on the teachers’ perspectives of inclusion being feasible. The awareness about issues related to the provisions and the policies formulated for the handicapped population seemed to be very low amongst the general educators.

Shafeeq (2003) studied the effect of training course on the adjustment and job satisfaction of teachers teaching visually impaired. The results revealed that teacher’s training course plays a prominent role in the adjustment of teachers while the teachers who did not receive any training are better satisfied in their jobs. Julka (2005c) reviewed existing instructional adaptations (general and specific) being used by teachers in integrated/inclusive classrooms. Regular teachers teaching in both government and private integrated/inclusive schools were interviewed and the instructional adaptations used by them were documented. The results of the study showed that the teachers did not experiment with any instructional strategies and still preferred to use the lecture method as the main method of teaching. Moreover the instructional adaptations found desirable by the teachers but in many cases not considered to be feasible in Indian classrooms.

Maguvhe (2005) studied the effect of inclusive education on the teaching of biology to
visually impaired learners. Educators and blind learners were interviewed through the use of Qualitative Enquiry Methodology as well as its techniques and strategies for data gathering. The results indicate that the educators spent good amount of time and efforts with blind learners in the biology and life sciences classrooms. Ragunathan (2005) conducted a study to find out correlation between awareness and attitude, awareness and competency, attitude and competency in primary school teachers dealing with low vision children. A sample of 324 teachers from 50 aided and 36 municipal schools were taken. The findings reported that there was a positive correlation between awareness and attitude, awareness and competency, attitude and competency in primary school teachers. Katsafanas (2006) described the roles and responsibilities of 17 special education teachers and the challenges they encountered in the areas of planning, instructing and monitoring of student progress of elementary students in four school districts in Western Pennsylvania. Findings revealed five challenges and impacts of the challenges they encountered in their daily work, together explaining the role dissonance experienced by many special education teachers in today’s schools. The collective knowledge and experiences of these teachers stand as examples for others in their own practices. Smith and Kelley (2007) surveyed universities that have teacher-preparation program for teaching students with visual impairments and deaf-blindness to determine how assistive technology training is integrated into the program curricula. The findings showed that half the universities have a specific assistive technology designed for individuals with visual impairments is evidence of its importance. Sharma (2009) identified the problems of mathematics teachers faced in teaching visually impaired children. A sample of 50 mathematics teachers teaching visually impaired children was selected both from
integrated and special schools. The investigator revealed that the main problem in teaching mathematics to visually impaired children were non-availability of basic necessary facilities. The children neither had their mathematics text books in Braille version nor essential equipments for learning mathematics like geometry devices etc. Other problems reported in the study were lack of sufficient time and inadequate skills for teaching this subject. 60% teachers reported that mathematics curriculum needs an adaptation according to specific needs of these children. Kain (2010) investigated the factors contributing to the efficiency of heads of schools for the visually impaired as an administrator and teacher. The finding of the investigation revealed that the head of schools for children with visual impairment having qualifications in the field of special education as well as general education and also research degree are better administrators and better teachers.

2.2.4 Studies related to Social Behaviour:

Punani (1996) reported that social integration and social acceptance of the students with visual impairment is enhanced under integrated education system. Sharma et al. (2001) conducted a study to identify value perception levels of students with visual and hearing impairments from special schools on gender equality and equal participation. The sample consisted of 73 students from three special schools of Mysore city. 38 students with visual impairments (19 boys and 19 girls) and 35 students with hearing impairments (31 boys and 4 girls) were selected for the study. Findings showed that most of the visual and hearing impaired boy students wanted the status of boys to be higher than that of the girls and similarly wanted money matters to be handled by men. Majority of both visual and hearing impaired girl students wanted the boys to share and take over the stereotype roles
played by the girls; majority of both visual impaired and hearing impaired boy students supported the equal participation of girls to a certain extent. Moreover the students with visual and hearing impairments have been given an inferior status by the society and have a hierarchy based on gender among them. Jindal (2005) conducted a study regarding self evaluation and recruitment of feedback for enhanced social interaction by a student with visual impairment. A student who is visually impaired was trained to evaluate his social behaviour and to recruit feedback from his sighted peers, who were trained by him to provide the feedback. The self recruitment of feedback improved the students’ accuracy in evaluating social skills requiring visual cues. Duvdevany et al. (2007) compared the social life and emotional state of two groups of adolescents- those whose parents were blind and those whose parents were sighted. It was found that there were no essential differences between the groups. Moreover, the friendship relationships, feelings towards parents, and some essential characteristics of the adolescents’ emotional state were positive among the adolescents whose parents were blind. Caballo and Verdugo (2007) studied the influence of visual impairment on the quality of participation in social relationships with peers. 128 primary and secondary school students participated in the study, 64 of them were visually impaired and the other 64 participants were sighted. In the study each of 64 regular teachers assessed a visually impaired student and a sighted classmate from the same classroom. Three stepwise multiple regression analysis were carried out to select the most important variables and estimate their relative contribution to measure the quality of one- to -one, small group and large group interactions. Analysis indicated that the presence of visual impairment is a significant predictor of having difficulties with social relationships especially in one- to- one and larger group
participation. The findings showed that these micro (specific verbal skills and body language) and macro (play, co-operation, expression and recognition of emotional skills) components of social skills contribute to the quality of social interaction among visually impaired children.

The review of research presented in the preceding pages shows that visually challenged individuals have been studied on different aspects of personality such as cognitive behavior, emotional intelligence, language development, self-concept, anxiety and attitude etc. Moreover these students have also been researched on the factors like scholastic achievement, school climate, teachers and social behavior. Some of the researchers attempted to compare visually challenged with sighted (Tangri, 1990; Nisar, 1990; Jan et al. 1990; Obiakor and Stile, 1990; Troaster, 1992; Lal, 1992; Beaty and Alan, 1994; Viyas, 1995; Nada and Michael, 1995; Corley et al., 1996; Sengupta, 1999; Satapathy and Singhal, 2002; Joshi, 2002; Cambra and Silvestre, 2003; Julka, 2005; Erin et al., 2006; Klinkosz et al., 2006; Naseema and Usha, 2007; Puche et al., 2007) on different aspects of personal and non-personal factors. Besides, these students have also been compared on the basis of their educational placement (Follansbee et al., 1997; Punani, 1997; Deb et al., 2002; Agarwal, 2004, Dawn, 2005; Panda, 2010). The perusal of studies presented in this chapter also indicates that a few researchers have shown concern about the relationship of various psychological factors with academic achievement of visually challenged students (Effendi, 1993; Reddy and Rajguru, 1994; Lali, 1995; Punani, 1997; Khan, 1999; Chandra, 2001; Sheikh, 2002; Agarwal, 2004; Sharma, 2005; Khan, 2006; Panda, 2009; Were et al., 2010; Rani, 2011; Singh et al., 2011).
After reviewing the related literature the investigator concluded that no attempt has been made so far to know the pooled effect of certain personality aspects of visually challenged students on their school achievement. This gap in the area led the investigator to explore the combined prognostic value of self-concept, emotional intelligence and academic anxiety of visually challenged students in inclusive and exclusive schools in relation to their scholastic achievement.