CHAPTER II

REVIEW OF RELATED LITERATURE

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CHAPTER-II

REVIEW OF RELATED LITERATURE

This chapter deals with the internal review of literature. It is an attempt to discover relevant material published in the problem area under study. This covers the empirical research studies done previously in the problem area. The studies conducted during the last few decades in the field of adjustment problems of hearing impaired children studying in special schools that are more relevant and pertinent to the present investigation are discussed in this chapter.

2.1 NEED TO KNOW ABOUT RELATED LITERATURE

For any worth while study in any field of knowledge, the research worker needs an adequate familiarity with the library and its many resources. Only then will an effective search for specialized knowledge be possible. The search for reference material is a time consuming, but very fruitful phase of a research programme. Every investigator must know what sources are available in his field of enquiry, which of them he / she is likely to use and where and how to find them. (Sukhia, et al., 1980).

The related literature forms the foundation upon which all future work will be built. It enables the investigator to know the means of getting to the frontier in the field of his research. It also provides ideas, theories explanations, hypotheses or methods of research, valuable in formulating and studying the problem. It furnishes the researchers with indispensable suggestions about comparative data, good procedure, likely methods and tried techniques. The information about the activities of previous investigations, stimulate the researcher to use each bit of knowledge as a starting point for new and further progress.
There are few studies relating to adjustment problems of hearing impaired students studying in special schools done in the past. However, only the literature pertaining to the independent variable used in the present study is referred in the succeeding chapters. Many educationalists opinioned that research in special education is very limited. Especially there has been little research on adjustment problems of the hearing impaired children those who are studying in special schools with regard to their personality, self-concept and social-demographic factors. Recently special education has taken steps towards the problems of handicapped children irrespective of their handicappedness i.e. hearing handicap, visual handicap, speech handicap, multiple handicaps.

The previous researchers on the hearing impaired, concerned to the topic were collected in order to know more about the different types of problems of the hearing impaired. The study of the literature and the knowledge of the previous studies in this area can direct the researcher to be specific on the focus of the study. The available previous researches on the hearing impaired are divided into four areas, namely:

- Home adjustment problems
- Social adjustment problems
- Academic adjustment problems
- Emotional adjustment problems
2.2 ADJUSTMENT PROBLEMS IN GENERAL

The process of adjustment starts right from the birth of the child and continues till his death.

The concept of adjustment is as old as human race on earth. Adjustment is a condition or state in which one feels that one's needs has to be fulfilled and once behaviour confirms to the requirements of a given culture.

L.S.Shaffer (Mangal, 1989) says that “Adjustment is the process by which living organism maintains balance between its needs and the circumstances that influence the satisfaction of these needs.” When the social and psychological needs of the hearing impaired children are not gratified, it may develop adjustment problems. The hearing impaired children encountered many problems in their adequate adjustment on account of their physical deformity. The hearing impaired children are unable to participate in desirable normal activities and their incapability develops in their emotional problems like resentment and discouragement. The hearing impaired children develop a feeling that others have a low opinion about them due to their defect and an undue exaggeration of this feeling in their mind result in development of inferiority complex and self-pity in them. The hearing impaired children develop adjustment problems with these feelings.

The hearing impairment reduces the knowledge of the world around. It also affects adversely the child’s performance in learning. The child adapts to his environment on the basis of the experiences he perceives through his sense modalities. Hearing and vision are most crucial for acquiring information about the world. Of these two, the sensory deprivation of hearing results in serious
educational handicap. In the absence of hearing, language symbols are not perceived and learned. An individual without a language system would be reduced to a level of functioning much closer to that of the lower species of animals. Children with auditory impairment may have difficulty in hearing either one or both ears or have no power of hearing at all. Deaf, partially deaf, hard of hearing, partially hearing, deaf mute are sometimes used to denote hearing impairments.

It is important to note that adjustment problems of hearing impaired students are not an independent phenomenon. Rather, it is directly influenced by number of factors, some of which are personal to the individual while many others are located in the environment in which learning process takes place. Thus in order to fully understand the concept as well as the process of adjustment problems, its imperative to identify and explore various factors relating to adjustment problems. Research has come to our aid looking into what variables-psychological, personal, home, school etc., promote adjustment and what are determinants to it.

The present investigation took note on the above factors and attempted to treat some of the prominent intellectual and non-intellectual factors as psychological, sociological and demographical factors and coined it as socio-demographical factors on adjustment problems of hearing impaired students studying X class in special schools are investigated.

Very few studies are done on adjustment problems of hearing impaired students studying X class in special schools.

Review of related literature to the present study is mentioned below.
2.3 EMPIRICAL STUDIES

Kamla-Raj: (2007) studied certain selected variables (Family environment and Social Adjustment) Related to Hearing Impaired Children. The study is designed as follows:

Objective: - The present study was conducted to assess certain selected variables (family environment and Social adjustment) relating to hearing impaired children. It, further aimed to provide them intervention in need-based areas.

Method: - The sample for the Study comprised of 15 hearing impaired children in the age group of 10-17 years, their parents, siblings and teachers. The entire core sample was selected by random sampling procedure from Samaj Kalyan.

Findings: - Results reveal that the disability of majority of the sample was detected late as a consequence of which the speech of these children was affected. Most of the Parents were found to provide supportive environment to the hearing impaired children and exhibited adaptability in adjusting to the special needs of their impaired children the parents also reported incidences of negative social response. Almost all the families scored average on most of the dimensions of family environment scale such as Cohesion, organization, Active recreation orientation etc., except for the dimension of Independence where majority of families scored low.
The results further revealed that on the basis of Social Adjustment Inventory 54% of the Children were found to be moderately adjusted followed by 33% and 13% who were as 3 negatively adjusted and adjusted respectively.

**Abiola Ademokoya and Shittu (2006)** explained in a study, the need for establishing relationship between some intrinsic factors in these students and their academic achievements becomes very imperative. This study therefore examined the influence of onset of hearing loss, gender and self concept on their academic performance in English language. 100 Senior Secondary School class III students with hearing disability were purposively selected to participate in the study. The study also raised 3 hypotheses to ascertain relationships between onset of hearing loss, gender, and self concept and English language achievement. Instruments such as the self concept scale of the Adolescent Personal Data Inventory, Adapted English Language Test and Audiological Reports were used. Findings showed that post-lingually hearing disabled students were superior to their pre-lingually hearing-disabled colleagues, male students did better than female students and student with high self concept outclassed those with low self concept. It was therefore recommended that teachers and curriculum developers should adequately consider these findings in teaching and curriculum development activities.

**Nuria Silvestre and Anna Ramspot (2006)** studied the importance in deaf students as part of their process of socialization and the formation of their self-concept. With the 56 deaf students who participated in the research, we consider the following socio-demographic variables: age, sex, and degree of hearing loss, and the educational factor with respect to the mode of mainstream schooling. Self-concept was explored using the Spanish version of the self Development Questionnaire (SDQ; I. Elexpuru, 1992) and the TST-who Am I?
test, adapted from M.H. Kuhn and T.S. Mc Portland (1954). To obtain the data for conversational competence, a conversation was held with a hearing adult. An explanation is given of the criteria for pragmatic analysis. The main results highlight the relationship between positive self-concept and most aspects of conversational competence. The study concludes with pedagogical procedures for integration, including specific strategies for teaching conversational skills to deaf pupils through non deaf pupils and vice versa.

Bruce Allen Knight (2005) reported on the “Study towards inclusion of students with special educational needs in the regular classroom”. Sample was 3 Normal Children and 1 boy with Asperger’s Syndrome (AS). The aim of the study was to ascertain whether collaborative group work on a computer facilitated by an adult, could provide a means for a primary school boy with Asperger’s Syndrome (AS) – moderately – highly affected in all areas of the “triad of impairments” – to develop appropriate task-related interactions with his peers. The results indicate moderate improvements in the child’s ability to interact with his peers, both in social and task-related contexts, as well as a raised social profile among his classmates in general. Although this was a discrete setting, the findings are encouraging and this strategy may be replicated in schools to support mainstream inclusion for children with Asperger’s Syndrome (AS).

Evi Makri (2005) investigated that girls are more vulnerable to depressive symptoms than boys with this gender difference widening during adolescence. Also found the scholastic competence is stronger for boys.
Manimekhalai, Selvem and Williams (2005) found that boys had more adjustment problems than girls due to uncontrolled life situations when they were with their parents or the girls' adjustment with the conditions of the school.

Anupama (2003) conducted 'A study on scholastic achievement of V class Hearing impaired students in relation to certain personal factors'. The study was undertaken in Rayalaseema region to find out the relationship between personal factors and scholastic achievement. The sample consists of 85 pupils selected from 3 districts of Rayalaseema region. The results reveal that there was significant differences between scholastic achievement and their personal factors like Gender, hearing loss, intelligence, type of school and Parents Education of V class Hearing Impaired students of 3 districts of Andhra Pradesh.

Marschank (2003) established that deaf children begin school lagging in general language skills relative to hearing peers and deaf and hearing students differ with regard to literacy and other academic skills. Such differences contribute to the observed patterns of academic performance, and have rather specific consequences for the further development of language and literacy.

Philomena Joseph (2003) in her study on "Certain Factors Influencing Language Performance of H.I. Students" found that regular use of hearing aid, private management, day scholar set-up, size of the class (Number of students below 10) etc., had positive impact on language performance.

Powers (2003) attempted to look at some of the student and family factors influencing the educational achievements of 16 year old deaf students
in mainstream schools. Findings indicate the complexity of interpreting statistical results especially on the effect of degree of hearing loss. The discussion addresses the specific question as to why this factor is often reported as not significant in academic achievement. It also considered the surprisingly low effect of family socio-economic status, and speculates on the size of the 'school effect in deaf education.

**Anand D. Latkar** (2002) was conducted "A study on writing difficulties faced by hearing impaired students studying in Higher Primary IED and Special Schools". This study found that the total written language performances of the hearing impaired in special schools is less than that of hearing impaired students in IED Schools.

**Borge** (2002) attempted to compose, apply and evaluate a test for language development in hearing impaired children, and to establish the first set of reference values related to age, sex, type and degree of hearing impairment. The results show that (1) children with hearing impairment have delayed language development. (2) The delay is great in children with larger losses and tends to decrease with increasing age. (3) 6 years old with hearing loss greater than 60dB have not reached the level of the control group (4) No difference between right or left sided deafness with respect to language development was observed.

**Uniyal** (2002) examined in a study that the females are found to have recorded good home adjustment than males. Also found home, school and social adjustment effect the achievement of the students. In a study **Veena Easvara Doss, Sumathi and Rekha** (2005) observed no significant gender differences were found on their adjustment problems. And also found not
significant influence of employed and unemployed mothers on the adjustment problems of the children.

Palmer, (2001) had taken parent views on inclusion for their children with severe disabilities. Written comments by 140 parents of students with severe disabilities are analyzed to identify reasons why they are supportive of or resistive to, inclusive education programming. Parents were supportive of inclusion because the child would learn more in a general education classroom. Parents who opposed inclusion largely indicated that the severity of their children's disabilities precluded any benefit from such programs or that the general education classroom program would not be educationally appropriate or welcoming to their children. Discussion includes to perceptions of the general education system itself. Ideas regarding parental perceptions of the importance of social relationships between students with and without disabilities are also considered.

Sharmista (2001) conducted an experimental study to enhance spatial concept learning among hearing Impaired.

Objectives: - (i) To find out the impact of the degree of hearing impairment on the learning of spatial concepts among the hearing impaired children of 6-7 years age group; (ii) to find out the impact of the degree of hearing impairment on the learning of spatial concepts among the hearing impaired children of 8-11 years age group; and (iii) to find out the impact of intervention on the learning of spatial concepts among the hearing impaired children.

Method: The sample consisted of 100 hearing impaired children (50 male and 50 female) drawn from the various special schools and integrated schools
of Mysore city. Raven's Coloured Progressive Matrices, Audiogram of the hearing impaired child, Tests on Basic Concept Development – I & II, and Interventional materials for developing identified difficult spatial concepts were used for the data collection. The collected data was analysed with the 't' test, ANOVA.


Objective: The study aimed to compare the personality traits and the personality profiles of the Hearing Impaired and normal children.

Method: The sample comprised of 460 children (230 Hearing Impaired studying in Special Schools and 230 normal children studying in ordinary schools) aged 14-20 years selected randomly. Children's Personality Questionnaire (Porter and Cattell, 1963) adapted by Siddamma (1979) was employed for data collection. Cattell's Profile Similarity Co-efficient was computed and the factors of personality were converted into sten values.

Findings: (1) The two groups of children both Hearing Impaired and normal were found significantly different in their personality profiles. (2) The Hearing Impaired and normal children were found different in seven personality factors and the rest of the personality factors the difference was not significant.

Vimala Devi (1999) conducted a study on, ‘Strategies to develop reading skill in Hearing Impaired children at high school level’.
Objectives: (i) To identify the reading levels of hearing impaired students in Class IX; (ii) To identify the gaps in reading levels of hearing impaired students in Class IX; (iii) To develop strategies to improve the reading levels of hearing impaired students in Class IX in four school subjects; and (iv) To try out these strategies for their effectiveness.

Method: The study was survey-cum-experimental design and the sample consisted of 142 students drawn from nine schools located in different regions in Andhra Pradesh selected using stratified purposive sample to school level and cluster sample at student level. The sample was divided into two groups as experimental and control group. Cattell's non-verbal intelligence test for the age group of sixteen, Meta Cognitive Reading Awareness scale by Mclain, Grindely and Mcolntosch (1991), parents educational and occupational status and siblings mental status, family history to know the occurrence of hearing loss in the family, economic status of the family and mean achievement scores of the students were used for data collection. The collected data was analysed using correlation matrix, 't' test and factor analysis.

Findings: (1) It was found that the reading strategy implemented improved the reading ability as experimental group performed better than control group in post-test. (2) A significant relation was found between achievement and reading ability. (3) It was found that reading ability was not related to degree of hearing loss. (4) Reading ability was found to be related to morphosyntacticlexical awareness, sentence acceptance task, and occupation, occurrence of hearing loss in the family and all the sub skills of reading namely literal comprehension, explicit influence, implicit inference, organization and creative reading. (5) Reading ability of hearing impaired students was found to below 39 percent. (6) In all regions students performed
best in literal level comprehension and lowest in critical reading ability. (7) Students found difference in their reading abilities in different regions at literal level, implicit inference organization and creative reading. (8) It was found that hearing loss was not a basic factor influencing student's performance.

Reezii and Janpul (1998) found that many pupils who had been included in regular school wanted to go back to their special school after suffering isolation and stigmatization in the regular class. This negatively affected their learning and development. Thus, if not carefully tough about, and if teachers do not take steps to change their attitudes as well as the attitudes of other pupils towards disability inclusion may result in accentuating rather than mitigating inclusion.

Yoshinaga Itano, et. al., (1998) found that early identified deaf children with mild, moderate, moderately severe, severe and profound hearing loss had similar language development in the first 3 years of life. Early identified deaf children, regardless of degree of hearing loss, had language development that was 90% of their chronological age if they had no additional disabilities. When children with hearing loss only were identified later, their language development was significantly better with better hearing; on average the late identified deaf children had language development that was 70% of their chronological age.

The children with impaired hearing have disadvantage in understanding many concepts in Science and Mathematics. Instructional materials and methodology to be used should be modified or adapted to teach difficult concepts to these children. In this respect, Sharma (1997) has undertaken a
study on “Finding out the effectiveness of an adapted science instructional material for developing difficult Science concepts in hearing impaired, in integrated and special schools”. The areas and Science concepts were identified from Science text-books which require adaptation to meet with the educational needs of hearing impaired. A teacher’s manual was developed for teaching these identified concepts. It contained adaptations for methodology to be followed by the teachers. Results showed that adaptation made in terms of content and methodology helped the students to learn and understand concepts better than the regular teaching without any modification i.e., integration of hearing impaired children needs adaptations and modifications of auditory based difficult concepts and requires more visual prompts.

Vijayasree (1997) conducted a study on Development of self instructional materials for VIII class Hearing impaired students in Natural science. In her study comparison was done among achievement scores of low, middle and high income levels. The results revealed that the performances of the students in regular class teaching were not influenced by the income levels of parents. When the differences scores of students from 3 income groups were compared. Middle income group students and High income group students performed better than the low income group. There was no difference in the performance of students from middle and high income students, when they were treated with self-instructional material. The income levels of students had influence over the performance.

Becker, Schildhammer and Ruoss (1994) studied the oral and writing performance of 23 pre-lingually deaf pupils from 9 to 15 years age whose hearing loss ranged from 85 to 117 dB. The results demonstrated enormous retardation of oral and written language development and specific qualitative
differences compared to hearing children. Both oral and written narrative abilities were found to be positively correlated.Further more, language skills were found to improve with age, especially in writing.

Devi Prasamishra (1993) conducted a study on “Self-concept and academic achievement of Hearing Impaired Children”. The study was administered on 102 Hearing Impaired children of Bhuwaneshwar and Cuttack in class VIII&IX. It was found that there existed a positive high correlation between self-concept and academic achievement. The hearing impaired boys’ self-concept and academic achievement scores were highly correlated. It is evident that self concept scores had a strong effect on academic achievement of Hearing Impaired Children. The students do excel in their academic achievement.

Murthy (1993) stated that intellectual functions of Hearing Impaired children are lower than the normal children. The performance of Hearing impaired children depend upon the degree of impairment and the type of school attend by them.

Ramacharya (1993) conducted “A Study of the Status of Hearing Impaired Children in Integrated Settings in India” and following conclusions are drawn.(a) In many cases Integration is existing theoretically but practically not in its true spirit.(b) In all the States Children are admitted to integrated schools without Pre-School education. (c) Hearing Aids that provided do not always cater to the individual needs. Some of the aids are not in working condition. In many cases, children are not equipped with hearing aids outside the School hours. (d) Human Resources are in sufficient in many schools and even if available, not well trained in Special Education, particularly Hearing Impairment. (e) Communication skills, Lip reading ability and Auditory
Training need special attention. (f) Teaching techniques are to be improved in regular classes. (g) Parental cooperation is lacking in many cases. (h) Public awareness is to be created through mass media.

In the article entitled "Education of the Deaf-some insights from psychology", Sen (1993) examined the prospects of education of the deaf, analyzing the psychological factors involved in it, like cognitive development, memory, perceptual and motor development, personality development etc., of deaf. She concluded that family has an important role in helping the child to adjust himself, to school and to other social situations. Also the educational experiences for the deaf need not be sterile or lacking in enjoyment. Virtually all activities open to normal children should also be available to the handicapped children.

Desselle Debra Duke (1992) studied the "Self-esteem, family climate and communication patterns in relation of deafness". The purpose of this study was to determine the effect of parental attitudes and family communication patterns on the self-esteem of a deaf child. Results of ANOVA revealed that there is a positive relationship between the family's communication method and the deaf child's self esteem such that parents who use total Communication (speech, fingers spelling & Sign); have children whose self-esteem scores were higher than parents who use oral method of communication. A positive relationship was found between the student's self-esteem and reading level. The higher the reading level of the deaf student the higher were the self-esteem scores.

Sundararajan and Mary (1992) studied adjustment problems of high school pupils. The results obtained by them revealed that pupils had satisfactory levels of adjustment in emotional, social and educational areas.
However in the area of social adjustment comparatively a large number of pupils did not have a satisfactory level of adjustment. In the other two areas their levels are satisfactory and the level in educational area is more satisfactory than the emotional area. Priscilla and Karunanidhi’s (1998) study on 100 girls of 8th and 9th standards showed that low self esteem and adjustment problems tend to increase the behavioural problems of adolescent girls.

Dharitri and Murthy (1990) studied the “Congenitally and pre-lingual hearing impaired children with varied degree of hearing loss for behavioural problems and parental attitudes”. They found hearing impaired children to be more restless, distractible, irritable, hyperactive, lacking in self confidence, showing temper outbursts demanding and nail biting. They further noticed that some behavioral problems like self- consciousness and anxiety increases with age.

Sharma Premalata (1990) A research study on impact of adaptation of instructional material on science concept, learning by deaf children from IED and special schools, RCE, Mysore. Adaptation facilitates both hearing impaired and non-hearing impaired in learning science concept better through the modification. The difficult concepts from text books of classes I to 7th standard were suggested on how to adopt instruction and evaluation of taught concept.

Wisel and Reichstein (1990) conducted a study on a sample of deaf persons who had the onset of hearing losses at earlier ages and were placed in segregated, special educational settings from very early stages of development. Interestingly enough, most of them reported that they were benefited from segregated educational placements and did not want to change their condition, thus indicating greater adjustment on acceptance of their impairment.
In an article entitled “Intellectual Functions of Hearing Impaired Children” Dharitri and Murthy (1989) made a comparative study on the intellectual functions of hearing impaired and normal hearing children. It was found that hearing impaired children scored significantly lower than the normal hearing children in IQ test, especially severely hearing impaired children attending special schools and profoundly hearing impaired children attending integrated schools. Also they showed poor performance in their basic perceptual and conceptual abilities. Hence it was concluded that, profoundly hearing impaired children should be admitted to special schools and severely hearing impaired to integrated schools so that they can be benefited more.

Sharma (1989) conducted a research on the linguistic competence of hearing impaired through case study of 50 hearing impaired studying in IED and special schools. The linguistic competence test in Hindi was constructed and standardized by the Investigator. The use of this test revealed that then linguistic competence (Comprehension spelling patterns, vocabulary levels and visual discrimination efficiency of the printed material) was better of the hearing impaired studying in integrated setting in comparison to the hearing impaired studying in special schools. The use of Raven’s progressive matrices for assessing the cognitive level showed that the Hearing Impaired secured good scores on this test in comparison to their normal counterparts. But the performance of the hearing impaired from integrated setting was better than that of the hearing impaired from special schools.

Tuli, (1988) conducted an Audio logical survey on 2000 children of whom half belonged to a low socio economic group. The incidence of hearing loss was found to be 12.25% of which 99.5% was having conductive hearing loss i.e., only one case had sensorinervual deafness whereas all other had conductive loss. The author further reported that incidence of conductive
deafness was 16.39% at the age 6 years (school going age); where as it fell down to 6.56% by the age of 14 years. More than 90% of the children fall in the category of mild to moderate. Conductive hearing loss (Borderline hearing loss). The hearing loss was 8.7% in urban schools as compared to 15.8% in rural schools. They tried to explain it on basis of literacy level along with hygiene and nutrition. They were examined in specially prepared sound treated and air conditioned van. 4489 children (Rural 1922, Urban 2567) were examined. Pure tone and impedance audiometry were performed on this population. 663 out of 4489 children (14.77%) were found to have deafness. In rural children the conductive deafness was noted to be 26.48%. Majority of the children had moderate degree of conductive deafness.

Prathyusha (1987) in her study reported that girls are superior to boy's mental health status. Similarly, Alexander and Rajendran (1992) found that female students are better adjusted than male students. They noted that male students desire for wider social relations, longing for higher living conditions and their expectations would be higher. This insatiable proclivity creates problems whereas the female students' needs are limited and would be in the reaching limits and hence they have less adjustment problems.

Sister Ritamary (1987) wrote an article on Education of the Hearing Impairment. She expressed the status of special education and the hearing impairment from the Independence and about the role of education in preventing the disability of deafness from becoming a handicap. She also stressed about the oral communicative skills with same curriculums for normal and Hearing Impaired children. She also emphasized on a variety of
educational options to meet the needs of hearing impairment. She stressed that parallel development of special schools and integrated education should form a part of planned effort and bring educating within reach of every Hearing Impaired child.

**Tapati Dutta** (1987) study on "A Self concept of H.I.Children", highlighted that integration improves the self concept of H.I. where as segregation leads to inferiority complex and poor self concept. The effect of language and intelligence, verbal or non-verbal, is perhaps most directly reflected in the child's academic performance. Catts and Kamhi (1986) report that the language difficulties associated with school age children affect not only their social use of language, but also their academic performance.

**Subramanyam** (1986) found that sex differences are significant with respect to academic adjustment favouring the boys. The boys are better adjusted with the present school environment compared to girls. Contradicting the above results Ahluwalia and Kalia (1987) found the female high achievers are better adjusted on social, health, emotional, school and home adjustment in comparison to male high achievers.

**Davis, Sheparde, Stelmachowica and Gorga** (1981) examined the standardized test scores for academic achievement, as well as intelligence and language development of more than a thousand children whose hearing impairments ranged from mild to severe. The authors found that the academic achievement of children with mild hearing impairments did not differ significantly from the norm. However, children with more severe hearing
impairments (greater than 50 dB) exhibited significant achievement problems that increased with age.

In U.S.A. due to The Education Act (1981), it has been a legal requirement that wherever possible, children with special educational needs should be educated in mainstream schools. This has provided an impetus to the growing trend towards integration of even severely hearing impaired children into the mainstream schools.

The observation that IQ correlates with educational attainment is consistent with the finding by Jenson (1980), who states that IQ correlates best with achievement in the more abstract school subjects such as English, Mathematics and Science.

Cusick (1980) found that female students experienced more problems in areas such as social, recreational activities and personal, psychological relations. Achenbach and Edelbrock (1981) compared behavioural problems reported by parents of normal and disturbed children aged four through sixteen. Results showed numerous gender differences on specific items but no specific gender difference in total behavioural problems.

Pathak and Malhotra (1975) compared boys and girls in their levels of home, health, social, emotional and school adjustment. They found that girls had more problems than boys in each area of adjustment. Webb and Allen (1979) investigated relationship between sex and mental illness. The strongest correlations were found between sex and four subscales of Denver Community Mental Health Questionnaire. Women tended to be productive and evidenced more psychological distress than men. A modest correlation was found on the Taylor Manifest Anxiety Scale with women showing higher scores.
Examining the impact of integrated and special schools on psycho-social adjustment Mcgee (1976), Cooney (1977), North Cott (1973) and Cruikshank (1979) found that deaf integrated children have better adjustment patterns, social maturity, emotional stability and sound self-image than their counterparts in special schools. North Cott (1976) cited that integrated education provides an oral environment to hearing impaired thereby getting a chance to improve his communication skills. He will be more independent and cease to depend entirely on others to convey his wants and intentions. He has also reviewed studies of other researchers which said that:

- It offers the child a model of personal/social/communicative Behaviour (North Oct, 1970; Luterman; Kirkman, 1974; McConnell, 1974).
- It reduces the amount of gesture language initiated by the hearing impaired child.
- There is positive reinforcement of attempts to talk, which take the form of intrinsic reward but also conveyed the power of speech (another turn is a group game: the chance to pass the cookies etc.)
- It cuts down the excessive dependence which may have developed between mother and child (Levine, 1960).
- It adds a verbal mediating link between the action of play and cognitive development for the hearing impaired child through the presence of highly verbal non handicapped peers.
- There are opportunities for increased comprehension and rich interior language stored for later incorporation in self expressions through spoken language.
However Kakkar (1967) reported that the adjustment problems of boys do not differ significantly from those of girls. Singh (1981) found no significant sex differences on five components of adjustment viz, academic matters, school matters, school organization, teachers and self. Similarly Ghouse and Khurana (1986) conducted an investigation to find out the difference between adolescent boys and girls in their adjustment and disclosed no significant difference. Vasishtha (1990) in his study on 80 adolescents in the age group of 15-18 years found that school adjustment of adolescent pupils did not vary with sex.

Beker (1953) reviewed 15 studies conducted on personality and social adjustment of deaf and hard of hearing children and concluded that deaf children in residential schools are more poorly adjusted, more unstable emotionally and more neurotic than children with normal hearing.

Carlo Musselman, Anju Mootilal (1996) conducted a study on the Social Adjustment of Ear Adolescents in segregated, partially Integrated, and Mainstreamed Settings; this study examined the social adjustment of deaf adolescents enrolled in Segregated (n=39), Partially Integrated (n=15), and Mainstreamed (n=17) settings (n=88), Segregated students showed the lowest levels of adjustment than mainstreamed students with deaf peers; mainstreamed students reported better adjustment than partially integrated students with hearing peers, shows the same level of adjustment with hearing peers as hearing students. Regardless of placement, deaf students reported better or equal adjustment with deaf than with hearing peers. Social adjustment with deaf peers was related to American Sign Language (ASL) skill and adjustment with hearing peers to spoken English. These findings suggests that deaf students can benefit from both segregated and integrated placements as complementary forms of Social experience that each contribute to overall adjustment.

2.4 Type of School Vs Adjustment problems

There is a great deal of controversy on the importance of co-education - and single sex schools. In this section an attempt has been made to review the empirical studies on effects of two types of schools on pupils.

In a study on adjustment problems of students of co-education and non-co-education colleges, Govind and Venkatammal (1999) found that there were no significant differences between students of co-education and non-co-education college students in their home, health, social, emotional and educational adjustment problem areas. In the study they revealed that boy students differed only in the area of home adjustment problems. No significant differences were found in all these areas in the case of girl students.

In a study Riordar (1985) found positive effects in achievement for single sex schools, particularly for girls. Lee and Bryk (1986) study showed that girls' schools evidenced consistent and positive effects on student attitudes towards academics. The students were more likely to associate with academically oriented peers. The effects of boys' schools on academic attitudes were also generally positive but weaker than in the girls' schools. With regard to school related behaviours students in single sex schools did somewhat more home work and this was especially true for girls.
Trickett, Castro and Schaffiner (1982) assessed the normative environments of 15 representative single sex and co-education schools by Trickett and Moos classroom environment scale and a student experience questionnaire. The sample includes 456 students in 78 classes of 15 schools. Single sex schools were perceived as having more academic orientation with greater task emphasis and competition than co-education schools. There were no difference between types of school, in the number of extracurricular activities students participated in, but co-education school students reported spending more time per week on extracurricular activities than single sex school students.

In a laboratory experiment Lockheed (1976) found that adolescent female participation rates and leadership behaviour in a game-playing situation were significantly increased by previous game experience in a single sex condition. No significant single sex effect for boys was reported.

Shantha Kumari (1975) found that the girls studying in single sex schools had less adjustment problems than their girl counterparts studying in co-educational schools. She concluded that nature of the school has significant influence on the level of adjustment of the students.

King (1966) compared mathematical attainment of 1535 students studying in single sex schools and 1021 studying in co-education schools. It was concluded that boys and girls from single sex schools do consistently better than those from co-education schools. Jones, Shallcrass and Dennis (1972) showed that students as both more academically oriented and satisfying than co-education schools viewed single sex schools.
The reviews of the above studies indicate that single sex schools deliver specific advantage to their students. Researchers found single sex schools to evidence a more academic orientation greater task emphasis, greater interest in academics, more time spent on homework and more adjustment.

2.5 Parents' Education Vs Adjustment problems

The following studies indicate that there is a positive correlation between parental educational attainment and childrens’ adjustment.

Amalor and Suresh (1999) observed in a study on the parental influence on the educational adjustment of the higher secondary students that the educational adjustment of the students whose father and mother have higher secondary or college level education is poorer than that of those whose father and mother have only primary level of education. With increase in the educational level of both father and mother the educational adjustment of students decreases. The reason could be that the educated parents demand a higher level of achievement in school than their uneducated counterparts.

Behera (1986) found that external controlled persons whether they were from high socio-economic status group or low did not differ in their adjustment. And internally controlled persons from advanced and backward socio-economic status families differ significantly in their adjustment scores. Subramanyam (1986) also reported that academic adjustment is positively correlated to the socio-economic status of the family.

Moss (1982) reported on sex difference in achievement in mathematics in Australia across an interval of 14 years from 1964 to 1978, during which period the women's' liberation movement started to have significant influence on employment opportunities and on the participation by
girls in education at the upper secondary and tertiary levels. The findings from this study, which involves the use of the same tests on the two occasions and across several autonomous state educational systems within Australia, indicated at the lower secondary school level a slightly higher level of performance by girls on subjects involving elementary arithmetic and algebra and a higher level performance by boys on subtests involving advanced arithmetic and geometry. Average achievement of girls did not equal that of boys, greater gains were made by girls over the period from 1964 to 1978.

Leibovich (1980) compared the scholastic achievement of 30 male and 30 female students from the 5th, 6th and 7th grades in Buenos Aires, Argentina. A battery of 35 tests covered perception, general reasoning, space, verbal ability, numerical ability, computing speed, memory and attention. A 2 way ANOVA was performed for each test to determine the influence of sex and school level on scores, school level did not significantly influence scores on perceptual tests but it did influence the other. The achievement of males was generally higher than that of the females.

Girls in U.K. generally perform as well as boys in elementary school upto 11 years and their performance dramatically drops at the secondary school level (Bristol Women's Studies Group, 1979; Sharpe, 1976). However, Sherman (1977) observed no significant differences in the achievement of boys and girls in arithmetic but in reading tests girls achieved significantly higher scores.

Similarly, Sharma and Bhargava (1980) found that difference between the mean academic attainment of males and females was insignificant. Lynn and Steven (1983) also found no gender difference in science and mathematics achievement. Grewal and Bansbir (1987) observed that sex had no significant influence on the development of verbal reasoning.
Mattoo (1980) investigated the differences in the adjustment of adolescents of the three levels of socio-economic strata (high, middle and low). He found significant difference in the emotional adjustment only. The emotional adjustment of adolescents of the middle and lower strata of socio-economic status though almost at par is significantly inferior to that of their counterparts of the higher strata. The difference in social adjustment is not significant.

Cornelius and Cockburn (1978) found that there is little difference between the overall performance of boys and girls, but in individual subjects large differences do exist. Philips (1979) found in 4th grade sample co relational analysis that sex and residual reading gain was negative. Tauliato (1979) found that achievement of girls was higher than that of boys. Blattastein (1981) indicated that sex differences for all achievement measures existed initially and finally.

Gupta (1978) found significant relationship between personality adjustment and parental education. Alexander and Rajendran (1992) studied influence of parents' education on students' adjustment problems. The sample consisted of 671 students selected by simple random sample technique. Mooney problem checklist was used to gather information. The results indicated that parents' educational level had definite influence upon their childrens' adjustment problems. Students from less educated families had more adjustment problems. Students whose parents' education was at degree level were better adjusted than students whose parents' education was up to high school level and primary levels. Students whose parents' education was up to high school level were better adjusted than students whose parents' education was up to primary school level. This might be because as shown by Chanchalor and Sansanwai (1993) that the level of education of parents did significantly affect type of raising of children.
Prakash (1977) study revealed that higher the socio-economic status lower the anxiety among adolescent boys. However, no significant difference was observed between upper-middle strata and lower-middle strata.

Walker (1976) has reported from the International Association for the Evaluation of Educational Achievement (I.E.A) a study on sex differences in subjects other than mathematics and science. On reading comprehension tests, boys showed lower performance than girls in a majority of countries, but the differences between the sexes were in general slight. In the cognitive literature tests boys did less well and also showed less interest in literature. Again in the study of English as a foreign language, boys scored below the girls on both reading and listening tests. In the civic education achievement tests boys recorded higher scores than girls.

Maccoby and Jacklin (1974) concluded that girls, by adolescence, excel at tasks requiring verbal power, including both receptive and productive language, higher level verbal tasks (analogies, comprehension of difficult written material, creative writing) and lower level fluency measures. One factor underlying female superiority in some aspects of verbal ability may be perceptual speed and accuracy, since female excelled on this measure in all four studies of sex differences cited by Maccoby and Jacklin.

There have been many studies of sex related difference in mathematics (Aiken, 1972; Stafford, 1972; Fennema, 1974; Callahan and Glennon, 1975; Fennema, 1975; Fennema and Sherman, 1977; Sherman, 1977). As reported in a review of 38 studies by Fennema (1974) no significant differences were found between boys and girls mathematical achievement before or during early elementary years. If apparent in the upper elementary and early high school
years, any differences were between levels of cognitive tasks. Boys were favoured when the tasks were at higher cognitive levels and girls were favoured when tasks were at lower cognitive levels. Data from National Assessment of Educational Progress (NAEP, 1975) indicate that neither sex has a clear advantage in computational ability.

The results of the studies of Fennema (1974), Maccoby and Jacklin (1974) supports the earlier conclusion of male superiority in mathematics. Fennema (1977) has challenged the view that sex differences in mathematics performance exist, once differential course taking on the part of the boys and girls is accounted for. Benbow and Stanley (1980) argue that course taking alone cannot account for sex differences, because they find more boys than girls among the mathematically precocious prior to ages when mathematics course become elective. Although Benbow and Stanley argue that their data support a genetic explanation, they fail to consider experimental factors other than course taking that might explain sex differences in mathematics performance. Parsons (1981), for example, finds that parental expectations exert powerful influence on the mathematical performance of boys versus girls.

The International Association for the Evaluation of Educational Achievement (IAEEA) examined mathematics achievement in twelve high literacy countries during the 1960s (Finn, et al., 1979). Boys at all levels performed better than girls, with the exception of certain aspects like computational problems in the U.S., Sweden and Israel. Sex differences were highest among 13 year olds in Belgium.
2.6 **Locality Vs Adjustment Problems:**

According to **Benson** (1985) in the lower grades, children in the rural areas and in urban slums may drop out of the school and study poorly on account of the problems of health and diet. **Bokil** (1956c) found that rural schools had more variation in failures. In another investigation **Bokil** (1956b) found that school size was not so important a factor, which affected the percentage of failures, but the size of the school influenced the number of candidates scoring less than twenty percent of total marks.

The locality in which the child resides or where the school is situated is also an important variable affecting the academic achievement of the students. **Chaterjee** (1977) found that at V class level city pupils tend to do better than rural. **Sharma and Bhargava** (1980) also found that rural and urban children differed significantly in academic achievement. However, **Maestas** (1981) findings suggested that region did not influence students' achievement, nor did the size of the community or size of the school.

According to **Beedwat** (1976) the intensity of incidence of under achievement was more or less uniform in the urban and rural areas. **Grewal and Bansbir** (1987) observed that the residential background had no significant influence on the verbal reasoning of boys and girls.

In their investigation on aspirations of urban and rural youth **Sewell and Hanser** (1975) reported lower educational and career aspirations for youth in rural locations, as compared with youth from urban locations. **Farmer** (1980), however, found no significant effect for school location on career motivation.
Educational programmes for people in rural areas are generally seen as means of compensating for and counteracting the dominance of powerful urban centres over the weaker rural community. Compared with people living in urban areas, country dwellers are in many respects at a disadvantage with regard to essential services, including access to educational institutions and quality of education. This is particularly true for rural masses in developing countries (Bude, 1981).

Jennifer Lukomski (2007), Van Eldik (2005), revealed that higher degree of hearing loss (i.e. profound and severe) were associated with higher degree of adjustment problems (i.e. home, social, academic and emotional).

Filiz Polat (2003) found that a significant negative association was also observed between the degree of hearing loss and overall, social, home, academic and emotional adjustment of deaf students.

Nunes, Pretzlik and Olsson (2001) found that residential school setting is found to be positively associated with academic, social and emotional adjustment problems.

Van Gurp S. (2001) noticed that there was no significant difference among the three groups (low self-concept, average self-concept and high self-concept of hearing impaired students).

Mc Granth and Neuss (1995), Frustenberg and Doyal (1994) Sinkkonen (1994) found no significant association between degree of hearing loss and Adjustment problems i.e. home, social, emotional and academic.
Antra Shirin and Kreimeyer Kathryn (1994) examined the effects of two interventions namely social skills and integrated activities on the peer social interaction on 105 children aged 3 to 11 with and without hearing impairments. The integrated activities intervention resulted in greater gains in total positive peer interaction than the social skills intervention.

Sinkkonen (1994) Mertens (1993), Alpin (1987); Chess and Fernandez (1980) identified that higher degree of hearing loss (i.e., profound and severe) was associated with higher degree of adjustment problems.

Kluwin Thomas (1993) studied on cumulative effects of mainstreaming on the achievement of deaf adolescents. The results showed that more mainstreamed deaf adolescents had higher achievement.

Walker Lynette (1993) made a study on Academic Learning of Hearing Impaired students in an integrated setting. He emphasized on communication as two ways process in which both hearing impaired and non-hearing impaired students were expected to persevere to understand what is being communicated. Much emphasis was given on maximum use of residual hearing, speech-reading skills, reading body language, and building up empathy, developing syntactic competency and experience in the flexibility of language.

Erting Carol, (1992) studied on deafness and literacy. He concluded that deafness is a human condition is not a deficit. The results concluded that the family of a deaf child plays an important role in language acquisition than the school.
Braekett and Van den Berg (1991), Leigh and Stinson (1991) found that deaf and hard of hearing students have scored lower than hearing students on self-concept measures.

Gates (1991), Maxon (1991) found that no significant difference had been noticed among the three groups of hearing impaired students i.e., low self-concept, average self-concept and high self concept.

Chatterji, Mukherjee, and Gupta (1988) made an assessment of intelligence level of hearing impaired children. The results showed, on the average, the handicapped children were found to have slightly low ability level than that of normal.

Parikh and Dhylon (1988) made a study on integrating handicapped children in the regular class. All subjects reported varying degrees of progress towards developing independence. They indicated overall improvement in developing relations with teachers and peers. One subject with speech and hearing impairment indicated an increased tendency to communicate by means of gestures and actions.

Dharitari and Murthy (1987) made a study on intellectual functions of hearing impaired children. Results showed that hearing disabled children were significantly below than the normal hearing in their intellectual skills.

Jangira (1987) studied the socio-economic choices of hearing impaired children in an integrated setting as well as their academic achievement as reflected in ranking, in respective classes. It was discovered that hearing impaired children also received choices from non-hearing impaired children for the selected tasks and most of them were near average or above average in academic achievement.
Lytle, Feinstein and Jonas (1987) portrayed that no significant impact of the type of school on the academic and psycho-social adjustment problems of hearing impaired students.

Bala (1985) made a comparative study of the mental makeup and educational facilities for physically handicapped to normal children. The results found that deaf children were deliberate, inactive, phlegmatic, prudent and tender minded. The adjustment of deaf children was socially, emotionally and educationally less stable. They had poor home and health adjustment.

Lata, K. (1985) made a study on the impact of parental attitude on social, emotional and educational adjustment of normal and handicapped students. The results revealed that normal children showed a significant difference from handicapped children in adjustment. The attitude of parents affected significantly the adjustment of handicapped girls but did not affect the adjustment of handicapped boys.

Meadow (1983) found that no gender difference on any of the three sub scales or overall psycho-social adjustment of deaf students. The same result was identified by Cartledge et al., (1991) and Myklebust (1960).

Koelle and Convey (1982), found that no significant difference had been noticed among the three groups of hearing impaired students i.e., low self-concept, average self-concept and high self concept.

Glass and Smith (1980) made an analysis of studies on size of the class. The study suggested that the smaller the number of children in the classroom, the better the achievement and social adjustment of all the children in the class.
Johndon (1980) studied on mainstreaming of exceptional learners in Southern California. No significant adverse effects were obtained. There was a slight advantage for non-handicapped children due to individualized attention by the teachers.

Cooper (1979) found that prelingual deaf children showed more behaviour and personality problems compared with postlingual deaf children.

Hudson, Graham, Warned (1979), Sleptieus and Braun (1980) examined the attitudes of regular educators about mainstreaming. Results of this study, suggested that regular class teachers fell that special class placement is a better option.

A study by O’Conner, Stuck and Wynne (1979) demonstrated higher gains in both academic achievement and tasks attention for elementary age children with learning and behaviour problems who participated in an eight week resource room programmes in the morning hours compared to similar children who remained full-time in regular classrooms. The resource room participants more than doubled their task attention and gained more than twice the academic achievement of the control children.

Miller and Sabatino (1978) made a comparative study on the resource room and teacher consultant models. It was found that academic and performance gains were similar for both approaches and that both approaches were significantly better than no service at all.

Altshuler et al (1976) found that profound early deafness is more closely associated with tendencies towards greater impulsivity than is generally found among the hearing population.
Jan, Freeman and Scott (1977) made a study on the specific effects of handicapped on siblings. Only a few siblings of blind or deaf children appeared to be negatively affected. They were unable to express open rivalry with a deaf or blind sibling and being forced to assume an unusually mature and understanding attitude at an early age. It was found that older female siblings of deaf children were given significantly more child care and home responsibilities and enjoyed fewer social activities than their peers.

Conner (1976) conducted longitudinal study of deaf childrens’ development and adjustment, at the Lexington school for the deaf. The data replicate previous findings that deaf children of deaf parents perform better than deaf children of hearing parents in a variety of tasks, including those requiring English language skills. It was found that the deaf parents were warmer and the initial flow of conversation between the deaf mothers and their deaf children was easier.

Martin (1975) studied on divorce rate in the families of the physically handicapped and the sensory handicapped. The results revealed no differences in relation to the general population. A study made by Jan, Freeman and Scott (1977) revealed that approximately equal numbers of parents of deaf and parents of blind children reported their marriages had either been strained or improved as a result of the birth of a deaf or blind child, with the majority citing neutral effect.

Drotar, Baskiewiez, Irvin, Kennell and Klaus (1975) made a study on the parental attitude towards a handicapped child. In this study, interviews with these parents revealed that at first they were shocked, sadness occurred next, and they left angry at themselves, the infant, or the doctor or other members of the hospital staff.
Colson (1973) made a study on the influence of positive acceptance of deafness of deaf children by their parents. He studied the hearing parents and the deaf parents, who were using oral and manual methods of communication with their children, respectively. He concluded that it was more positive acceptance of deafness and of deaf children exhibited by the deaf parents that was responsible for the gains rather than exposure to manual communication.

Benerjee, et.al., (1970) investigated the nature of deaf children in comparison to normal hearing children. The study revealed that, even under similar environmental conditions, the deaf children and normal hearing children in their interests.

Altshuler (1967) made a study on personality development of deaf children. He found the fact that percentage frequency of Schizophrenia in the deaf population was about two and one half times more than the hearing population.

Myklebust (1964) formulated that the deaf have altered perceptual skills because of the necessity for them to shift their utilization of the senses relative to normal and such altered perceptual skills result in altered abilities. He pointed out that deaf children are not inferior on all types of abstract abilities and conceptualizing process.

Myklebust (1964) compared the personality characteristics of day deaf children to those in residential schools. He found that deaf school children in day school showed more emotional stress, conflict and frustration in comparison to the residential children.
Baroff (1969) studied the adjustment of deaf adults. It was found that deaf individuals were found capable of establishing effective personal contacts. Seventy five percent of those interviewed claimed that they had close friends and a higher percentage reported being with others on a social basis at least once a week.

Barsch (1968) studied the families with deaf, blind, Down’s syndrome, cerebral palsied or brain injured children. It was found that the Child rearing practices of those families were found to be good as their children were found to be well adjusted. As a result Barsch rejected the stigmatization of parents of the handicapped as guilt laden, anxious, over protective and rejecting.

Myklebust (1964) made a study on emotional problems of the deaf. The results showed that the hearing impaired possess more emotional problems than the normal hearing when compared with the opposite sex. The males among both the deaf and the hard of hearing exhibit greater emotional problems than their female counterparts. The hard of hearing both male and female showed more adjustment than the deaf.

Myklebust (1964) in reviewing the various investigations that have been done in social development concluded that deaf children up to the age of 15 approximately 10 percent retarded in social maturity when compared to hearing children.

Treacy (1955) made a comparative study on the social competence levels of profoundly deaf children in a day school with a group of partially hearing children of the same school. It was found that partially deaf children who had considerable residual hearing used amplification well and were less handicapped in language than the deaf group.
Barker and others (1953) made research on the personality and adjustment of the hearing impaired persons. The highlights of their findings show that children with impaired hearing were less well adjusted, less stable emotionally and more neurotic than normally hearing children. Children in Residential Schools appeared to be less socially mature than children with normal hearing.

Levine (1949) made a study of the emotional and mental aspects of the personality of normal and deaf adolescent girls to determine whether certain specific traits characterized their personalities and if so what they were. The results showed that the deaf students possessed emotional and conceptual immaturity.

Avery (1948) made a study on the social competence of pre-school hearing impaired children. It was found that the deaf children were normal in social maturity.

Doll (1947) used the term social maturity to designate this broad aspect of human behaviour and devised the Vineland Social Maturity scale.

Pintner, Eisenson and Stantor (1945) judged the deaf as three or four years academically retarded, with the old children being the greatest number of years in arrears. Kirk (1962) estimated the deaf to be two to five years academically retarded. Meyerson (1955) gave an estimate of three to five years.

Pintner (1942) made a comparative study on the personality traits of hard of hearing children against a control group of normally hearing children. The results found that there were no significant differences between the two groups in either ascendance-submission or the extraversion-introversion phase.
of the test. In the emotionality phase there was a tendency for those with greater losses of hearing to score slightly lower.

Streng and Kirk (1938) made a study on the social competence of the hearing impaired children. The results indicated low positive correlation between SQ’s and IQ’s.

The personality of the child who suffers sensory deprivation of hearing in early life is also subject to deleterious developmental effects. Meadow (1968) has pointed out that one of the most consistent findings is that the deaf are less mature than the hearing.

Pintner and Brunschwig (1936) found that the deaf children in families possessing no other deaf members showed lower adjustment than such children from families containing other deaf members. One interpretation of this finding credits the deaf adults with better understanding of the deaf child, thereby facilitating his ability to adjust.

On the basis of the researches reviewed the present studies on the adjustment problems of the hearing impaired students studying X class in special schools both the Residential Schools and the Day schools of Andhra Pradesh attain significant importance.

2.7 APPRAISAL

It may be seen from the brief review of related literature presented in the forgiving pages that a few number of studies on hearing impaired students have been carried out in the area of adjustment problems. Adjustment problems continue to be one of the most important variables held in high esteem in all cultures, countries, and times. Hence, the research related to the area of adjustment problems at home and school are an ever growing concern of the researcher, educationalists and administrators.
Adjustment is a paramount importance, particularly in the present socio-economic and cultural contexts. Great emphasis is placed on adjustment right from the beginning of life of any individual. A considerable number of students from special schools go to colleges and institutions of higher learning. It is very important to ensure that such students acquire the required adjustment so as to benefit more out of the life.

The importance of adjustment problems of hearing impaired students has raised several important questions for educational researchers what factors influence adjustment of hearing impaired students? How far do the different factors contribute towards adjustment of hearing impaired students? Many factors have been hypothesized and researched upon.

The review of literature suggested that studies related this area may be broadly classified in the following categories.

- Studies with psychological base.
- Studies with sociological base.
- Studies with demographical base.
- Studies relating to above said psychological, sociological and demographical base.

There are few studies on adjustment problems of hearing impaired students in relation to psychological, sociological and demographical factors at primary and secondary/ high school levels. Very few studies were found particularly on special schools for the hearing impaired students. The present investigation considered to strike at the combination of psychological, sociological and demographical factors in the prediction of adjustment problems of hearing impaired students studying X class in special schools.
Review of related literature discloses that an extensive study on the influence of socio-demographical factors on adjustment problems of hearing impaired students in special schools. It is an attempt to see the relationship between presage and product variables of adjustment problems.

The present investigation is a naval and unexplored one with respect to population of hearing impaired students studying X class in special schools.

Another interesting feature is observed is that majority of the hearing impaired students in the area of adjustment problems confined to simple correlational analysis between predictors and the criterion variables. Individual and cumulative effects of several independent factors on adjustment problems could be assessed more accurately by employing regression analysis. Therefore, the main aim of the study is to predict the multiple effect of the independent factors on adjustment problems of hearing impaired students and further to suggest suitable regression equations in the prediction of adjustment problems of hearing impaired students studying X class in special schools.

By and large except on a few variables, the result obtained in the area of adjustment problems are not coincide and hence warranting further exploration. Further, studies on the relative impact of each of the several independent variables that effect adjustment problems are rare to find. The need for search on the area of adjustment problems of hearing impaired students studying X class in special schools is warranting.

The above crucial conditions lead the investigator to make an attempt in this area of adjustment problems of hearing impaired students studying X class in special schools in relation to psycho-social and demographical factors. Keeping all these observations in view, the problem is stated clearly with its objectives and suitable hypotheses are formulated in the succeeding chapters.