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# A STUDY MEASURING ACADEMIC ACHIEVEMENT AND INTELLIGENCE OF HEARING IMPAIRED BOYS IN WEST BENGAL DISTRICT

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#### Introduction

Adequate literacy (reading and writing) skills are essential to being a successful participant in educational settings and subsequently in professional/employment opportunities (Lederberg, Schick, & Spencer, 2013). In most individuals, reading abilities start evolving in early childhood through development of pre literacy skills, advance with formal reading instruction in school, and expand as a result of higher education, social, and recreational experiences (Luckner, Sebald, Cooney, Young, & Muir, 2005). Without age-appropriate reading and writing skills, students cannot fully participate in classroom activities and are at risk for academic failure, leading to problems with employment and social adjustment (Moats, 2000) Over the last 40 years, results from numerous studies have indicated that deaf children have significantly poorer reading comprehension, literacy skills, and overall depressed academic achievement in general when compared to their hearing peers (Qi& Mitchell, 2012; Wilbur & Quigley, 1975 ), decreasing the likelihood of enrollment in postsecondary education institutions (Garberoglio, Cawthon, & Bond, 2014). Numerous surveys (Allen, 1994; Traxler, 2000) report that approximately half of deaf students in the United States were reading below the fourth grade level at the time of their high school graduation ( Cawthon, 2004), with only 7–10% of deaf high school graduates reading at the seventh grade level or above. In addition, studies reported that mathematical achievement of deaf students in various countries has been significantly poorer than that of their hearing peers (Pagliaro, 2010). In any given society there are individuals who by virtue of their physical and intellectual disabilities, require a more relevant or appropriate instruction that is usually available within formal and informal educational structure. We call these people exceptional or special and we have constructed a domain of education to satisfy their learning requirements and a social

philosophy to justify it-(Laura and Ashman, 1985). So, special education is the individually planned and systematically monitored arrangement of physical settings, special equipment teaching procedures and other intervention designed to help the exceptional children to get greatest possible self - sufficiency and academic success (Howard and oriansky, 1984). According to black Hurst and Berdine (1981), special education is an instruction designed to respond to the characteristics of child whose has needs cannot be met by the standard school curriculum. According to black Hurst and Berdine (1981), "special education is an instruction designed to respond to the characteristics of child whose has needs can not be met by the standard school curriculum".

# LITERATURE REVIEW

Kaile and Bajwa (1985) conducted a study of relationship between intelligence and achievement in science, selecting 278 9<sup>th</sup> class students from five different schools of kapurthala district. The value of 'Y' between the two variables varied from 37 to 64 for different school.

Gakhar's (1986) study aimed at investigating the relationship between intelligence and academic achievement of college students undertaking different courses. The value of 'Y' between intelligence and achievement for science, commerce, arts and home Science groups were to be. 52, 0.61, 50 and 54 respectively and all these values were significant at 01 level.

KishanPuri et al. (1986) studied on 10th class students, showed the values of correlation of intelligence with achievement in biology and mathematics to be 04 and 0.01 respectively revealing there by that students who showed higher achievement on mental ability tests scored low on scholastic achievement tests in biology and mathematics.

Saxena (1975) has done a comparative study of verbal teaching behavior patterns and students achievement at knowledge, understanding and application levels. He reported significant difference in the behavior patterns and achievement scores of pupils of programmed and non-programmed teachers.

Afif (1977) conducted a study on the effect of accommodating learning style of students' achievement in mathematics and found that male students had higher achievement scores than female.

Block (1981) tested the field of dependent and independent styles among a group of 200 students and their teachers students were also assessed on a comprehensive test of basic skills to determine their achievement in mathematics and reading. Results indicated that a teacher student style had a positive impact on student achievement in reading although not on achievement in mathematics.

Grout (1991) examined the relationship of the capability of English teacher's styles to student achievement in English. He discovered that congruence between teacher and students learning style significantly contributed to student achievement in English.

# **Objectives**

- (i) To study the level of academic achievement of hearing impaired boys in relation to their parents' income and education.
- (ii) To study the academic achievement of hearing impaired boys in relation to their intelligence.

# **Research Methodology**

Academic Achievement and Intelligence of Visually impaired boys have been examined considering the education level and income of the parents. For this study 100 visually impaired boys have been taken from three special schools in Haryana. The following statistical techniques have been used

- (i) Mean.
- (ii) Standard Deviation
- (iii)t-test.
- (iv)R.K. Ojha IQ test

# **Data Analysis and Interpretation of Results**

As mentioned in the methodology Academic Achievement and Intelligence of Hearing Impaired Boys have been analyzed in the following tables considering their parents educational qualification and monthly income.

Table-I: Intelligence of the Visually Impaired Boys Compared with in the Group

Intelligence	No of case
Relatively Superior	23
Relatively moderate	50
Relatively inferior	27

From the study it was estimated that 27% of the sample were of relatively inferior intelligence, 50% of the sample were of relatively moderate and 23% were of relatively superior intelligence (Table I). Most of the hearing impaired boys fall in the range relatively moderate to relatively inferior intelligence group.

Table-II: Performance on the Basis of Previous Three Examination

Scores in percentage	No of cases N-100	Percentage
50% and above	70	70%
41-49%	29	29%
40% & below	1	1%

Around 70% of the visually impaired boys are good achievers 19% are average achievers and 1% is under achievers.

**Table-Ill: After Applying t-test** 

Income ((Monthly) Gr	N	Mean	t-score	Significance at 0.05 level	
Below 5000	51	52.54	1.45	Not cignificance	
Above 5000	49	55.88	1.43	Not significance	

Table-Ill shows that scores of both groups, below 5000 and above 5000 are found with mean 52.54 and 55.88 respectively. After applying t-test, it is found that score is 1.45 which is not significant at 0.05 level of significance. It indicates that academic achievement and intelligence are not influenced by income of the family.

Table-IV: Academic Achievement and I.Q Range

Marks obtained in %	No of cases	I.Q Range
60% and above	24	average to superior
50-59%	46	upper limit of bright dull normal to normal
40-49%	29	Lower limit of average to dull normal
40 and below	1	Dull / normal

The present table - IV shows that those children who have good. I.Q. level, they also have good achievement. It means that achievement is influenced by I.Q. level.

**Table-V: Comparison Between Income and Intelligence** 

Income	Relatively Superior	Relatively Moderate	Relatively Inferior
Above 5000	8	42	11
Below 5000	2	31	14

In Table V it is very clear that income does not influence intelligence of a person. That is clear with the help of present table as those parents have income above 5000 their children are not relatively superior. But the other group (below 5000) has 2 children who are relatively superior.

#### **FINDINGS**

The study was undertaken to investigate the academic achievement and intelligence of hearing impaired boys in relation to parental education and income in West Bengal. The findings of the study are presented below -

- 1. It was found that majority of Parents of hearing impaired boys in West Bengal have not even completed their class X apart from a few.
- 2. It was found that majority of Parents of hearing impaired boys belong to the lower income group.
- 3. Most of the hearing impaired boys fall in the range of relatively moderate to relatively inferior intelligence group but basically they are good achievers.
- 4. It was found that academic achievement and intelligence are not influenced by income of the family.
- 5. It was found that those children who have good I. Q. level, they have good achievement. It means that achievement is influenced by I. Q. level.
- 6. It was found that income does not influence intelligence of a person. That is clear with the help of present table V as those parents have income above 5000, their children are not relatively superior but the other groups (below 5000) has two children who are relatively superior.

#### **CONCLUSION**

In brief we can say that both intelligence and academic achievement do not influence by income and education of the parents of hearing impaired boys.

Academic struggles in school, children with hearing loss can also experience trouble socially. Communication is vital to social interactions and healthy peer relationships; without the ability to communicate effectively they often experience feelings of isolation and unhappiness. If a child with hearing loss is excluded from social interactions or is unwilling to participate in group activities due to fear of embarrassment, the result is that she can become socially withdrawn, leading to further unhappiness. Children with hearing loss are also slower to mature socially, which hinders peer relationships.

Frustration and confusion can also play a big part in poor academic performance. Though the child might have perfectly normal speech, a child with only mild hearing loss can still have trouble hearing a teacher from a distance or amid background noise. children with severe-profound hearing loss performed in the average or above average range less frequently than their hearing peers. In such circumstances early intervention process cannot be ruled out.

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