

**STUDY OF ACADEMIC ACHIEVEMENT OF SECONDARY SCHOOL STUDENTS
IN RELATION TO THEIR INTELLIGENCE****Dr. Kamlesh Dhull,***Assistant Professor, Vaish College of Education, Rohtak. E-mail: kamleshdhull10@gmail.com***Abstract:**

The present study is an attempt to find out the difference in intelligence and academic achievement of secondary school students. The present study is conducted on a sample of 160 secondary school students of government and private schools of Rohtak district of Haryana. General Intelligence Test by Dr. S.M. Mohsin and Academic achievement scores are taken on the basis of marks obtained in 9th class. Mean, Standard Deviation, 't' test and Karl Pearson's Product Moment Coefficient Correlations tests are used to analyse the data. The findings of the study reveals : (i) Private school students are found more intelligent as compared to government school students; (ii) students having high intelligence were found to have better academic achievement than those students with low intelligence; and (iii) a significant and positive relationship is found between intelligence and academic achievement of secondary school students.

Key words: *Academic Achievement, Intelligence, Secondary School Students*

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Introduction

The word "achievement" refers to a person's level of progress and proficiency in a particular field of academic study. The academic achievement is the core of the educational growth. It has a great importance in child's life. Success in academic subjects acts as a stimulant and any damage done to a child in the home and neighborhood may be partially repaired by the success in school. High achievement in the school creates self-esteem and self-confidence in the child and it decreases test anxiety which leads to better adjustment in the society. Attainment of success in school subjects causes children to set high goals for themselves. Achievement is a task-oriented behavior. Achievement is the performance of the pupil's accomplishments in subjects of study. It is the function of many cognitive aspect of personality. Academic achievement is important to assess the progress made by the adolescent in the whole educational process.

Education decides the quality of life, growth, and status of people everywhere, and it is the driving force behind the advancement of human life and civilization as a whole. With the rise of democracy in India, as well as plans for free elementary education, a new outlook on educators' position and responsibilities has arisen. This objective is to increase all children's academic achievement. Intelligence and talent indicators were the main predictors of academic success in early studies. Furthermore, the students' primary goal has always been to attain success in the past and present. Parents and teachers both hope and strive for their students' best academic achievement. The child is categorized as a high achiever or a poor achiever depending on their success. The child's accomplishment is determined by many factors, including the child's

curiosity, inspiration, change, and interest in reading. A test that assesses a student's knowledge of a subject. The performance test will be used to determine how much a pupil has learned from the learning opportunities that have been given to him.

The researcher wanted to look at the impact of level of intelligence on academic performance. High achievers aren't really smarter than those who don't (Hurlock, 1978). Intelligence offers insight and direction of human ability in order to accomplish an objective. Intelligence is connected to the mental system process, which is the most successful way for children to enhance their academic performance. Since any student in the classroom possesses a diverse set of abilities, it is critical that the school provide a number of opportunities for learning. The absence of a student's academic subject does not mean that he is totally devoid of talent. Any person should be motivated to recognize and grow his or her unique abilities to their full potential. Individuals' skills are deprived due to the school's failure to do so (Dutt, 1998). Any of the variables can have a significant impact on whether students succeed or fail in their academic endeavors.

Hence, achievement is something gained by some person in his field of efforts. Various people show achievement in different field like academic, sport, economics etc. The term academic implies the degree of level of success obtained by students in their course of students. In the different aspect of life, there are various parameters of measure the achievement. In the present investigation achievement denotes the scores obtained by students in the achievement tests.

Intelligence

Man's history, like that of other modes of existing life, has been characterized by transformation, adaptation, and transition in order to ensure longevity and development. Man, on the other hand, has outstripped all other creatures in brain growth, making him superior to other animals in terms of behavior and environmental regulation. However, we all know that different people have different ability to respond to and alter their surroundings, and that each person thinks differently. He solves challenges related to his environment and overcomes roadblocks to his success more easily than this fellow, who finds it tough to adapt to his colleagues when the others are very effective in doing so. Some people excel at judging and reasoning, while others struggle. It is possible to be more rational than others. Both of these distinctions are based to a large degree on a critical standard of behavior known as intelligence by psychologists. The sense of the word intelligence is hazy at best. Psychologists in India and abroad have interpreted the concept in various ways, but they both agree on the definition of intelligence. Many studies on different aspects of intelligence, including the sense and essence of intelligence, have been conducted over the last 60 years. According to Sternberg (2000), "There tend to be just as many meanings of intelligence as there were experts asked to describe it, when interpreted narrowly." There is also no widely recognized concept of intelligence, after decades of study and discussion. As a consequence, some people assume that intelligence can only be approximated, not completely described. This level of pessimism is, in our opinion, excessive. Despite the fact that no single concept exists, if one looks at the various meanings that have been proposed, it is easy to see how close many of them are. Various meanings, when correctly understood, frequently mean the same thing in different terms. This discovery leads one to conclude that a single overarching description for arbitrary structures is feasible.

Indeed, we've developed a systematic concept of intelligence, dubbed universal intelligence, that's closely related to the theory of optimal learning agents.

Intelligence has been considered as the most important cognitive factor that explains variations in achievement scores. Numerous studies have examined the relationship between intelligence and achievement. Although methodologies, data collection techniques, and variables included have varied, most studies show that intelligence and achievement are highly correlated. As a result, the relationship between general intelligence and academic achievement is now well established (Jensen, 1998). Examining individual differences in educational outcomes and predicting academic success has been the principal objective of developing cognitive ability tests (Ackerman & Heggstad 1997). In assessing the predictive validity of intelligence tests, educational achievement is the primary target (Deary, Strand, Smith, & Fernandes, 2007). General cognitive ability is a strong predictor of academic achievement (Gustafsson & Undheim, 1996) and, due to its strong predicting power, IQ tests are pervasive in schools and workplace settings (Kuncel, Hazlett, & Ones, 2004).

Review of Literature

Habibollah, et al. (2008) reported that there were no significance between males and females on intelligence but the result shows males' means are higher than females. **Shubhada and Kanekara (2012)** found that females attained the highest score on academic achievement as compared to males with other sex role identities. **Arul and Deepa (2013)** found the significant relationship between emotional intelligence and academic achievement of high school students with reference to the background variables. **Parveen (2014)** found a significant and positive relationship between intelligence and academic achievement on female sample at tenth grade students. **Cavojava and Mikuskova (2015)** found a positive and significant relationship between intelligence and academic achievement. **Arya and Maury (2017)** found that there is no significant association between creativity, intelligence and academic achievement. **Dandagal and Yarriswami (2017)** revealed that there is significant relationship between academic achievements and intelligence. The study also indicated that there is no significant difference in academic achievement of boys and girls in case of different levels of intelligence achievement differs as a classroom which affects the academic achievement of the students. **Khan (2019)** noticed the private student's cognitive skills are better than public sector. A significant impact of emotional intelligence was found on students' academic achievement.

Rationale of the Study

As a society becomes increasingly complex owing to rapid scientific and technological progress, it needs high capacity manpower to sustain and maintain the pace of progress of the society. For reasons such as this, the concept of intelligence is becoming increasingly important in modern societies. No sphere of life, whether it is education or social and physical science, literature or art etc. has remained uninfluenced by the intelligence. The working force behind the success and attainments of world's greatest scientists, psychologists and politicians etc. has been one and only, and that is intelligence. Intelligence not only enables an individual to attain great heights of success in life but also develops in him the ability by which he is well adjusted in his environment and saves himself from becoming its victim. Parent and teachers focus always

on academic performance through nurturing intelligence and they give less importance to their emotions. Intelligence may help students in acquiring subject knowledge but only emotional intelligence can enrich their learning proficiency and make them efficient as well as achievers. Hence, the present study has been undertaken to study the academic achievement in relation to intelligence of secondary school students. Hence, the statement is “Study of Academic Achievement of Secondary School Students in relation to their Intelligence”

Objectives

1. To compare the academic achievement of the government and private secondary school students.
2. To compare the academic achievement of the secondary school students having high and low intelligence.
3. To find the relationship between Intelligence and Academic Achievement of secondary school students.

Hypotheses

1. There is no significant difference in academic achievement of the government and private secondary school students.
2. There is no significant difference in academic achievement of the secondary school students having high and low intelligence.
3. There is no significant relationship between Intelligence and Academic Achievement of secondary school students.

Methodology

Descriptive Survey Method has been used for the collection of the data of the present study.

The Population and Sample

Secondary school students of Rohtak districts constituted the population of this study. A sample of 160 secondary school students was taken on the basis of random sampling method.

Tools Used

1. General Intelligence Test by Dr. S.M. Mohsin
2. Academic achievement scores were taken on the basis of marks obtained in 9th class final exams.

Statistical Techniques Used

Mean, Standard Deviation, ‘t’ and Karl Pearson’s Product Moment Coefficient Correlation tests were used to analyse the data.

Analysis and Interpretations

The difference in students in relation to types of school and type of intelligence and relationship between academic achievement and intelligence are given in table 1 to table 3.

Table 1: Mean, Standard Deviation and ‘t’ value of academic achievement of secondary school students of Government and Private Schools.

<i>Types of Schools</i>	<i>No. of Students</i>	<i>Mean</i>	<i>S.D.</i>	<i>C.R.</i>
Students of government Schools	80	72.54	10.22	3.715**
Students of private Schools	80	87.93	13.38	

**Significant at 0.01 level of significance

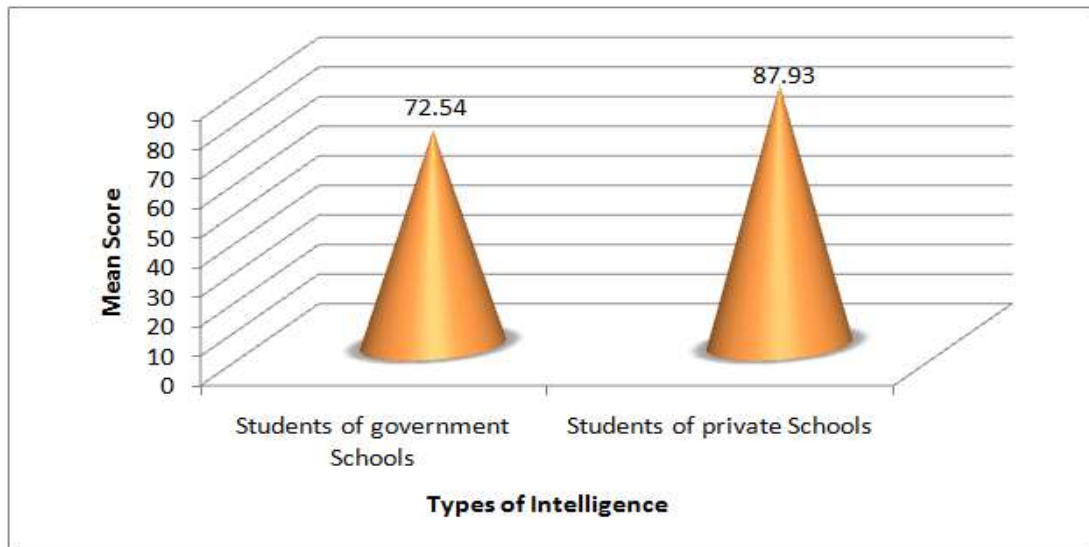


Fig. 1: Mean values of academic achievement of secondary school students of Government and Private Schools

Table 1 reveals that t-value (3.715) for the mean scores of academic achievement between government and private secondary school students which is significant at 0.01 level of significance as the tabulated values of 't' is 1.96 at 0.05 and 2.58 at 0.01 level of significance. Thus, the null hypothesis that "There is no significant difference in academic achievement of the government and private secondary school students" is not retained. It may therefore be concluded that government school students have less academic achievement scores in comparison to private school students.

Table 2: Mean, Standard Deviation and 't' value of in academic achievement of the secondary school students having high and low intelligence

Types of Intelligence	No. of Students	Mean	S.D.	C.R.
Students with high intelligence	76	88.62	10.21	8.974**
Students with low intelligence	33	65.36	7.34	

**Significant at 0.01 level of significance

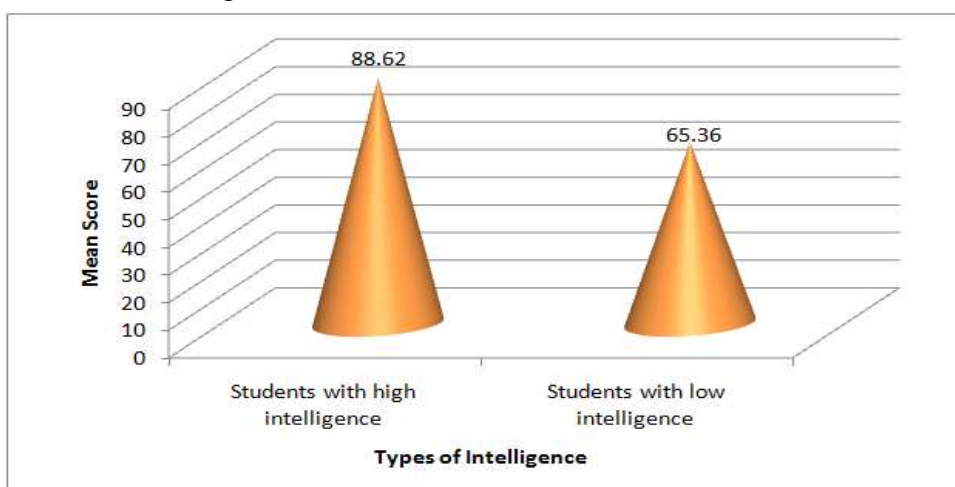


Fig. 2: Mean values of in academic achievement of the secondary school students having high and low intelligence

Table 2 reveals that t-value (8.974) for the mean scores of academic achievement of the secondary school students having high and low intelligence which is significant at 0.01 level of significance as the tabulated values of 't' is 1.96 at 0.05 and 2.58 at 0.01 level of significance. Thus, the null hypothesis that "There is no significant difference in academic achievement of the secondary school students having high and low intelligence" is not retained. So it was found that that academic achievement of the secondary school students with high intelligence is far better than students with low intelligence.

Table 3: Co-efficient of correlation between Intelligence and Academic Achievement of the secondary school students

Variables	Coefficient of correlation	Level of Significance
Academic Achievement	0.652**	0.01
Intelligence		

N-160

**Significant at 0.01 level

The table 3 depicts that co-efficient of correlation between academic achievement and intelligence of secondary school students is 0.652 which is significant at 0.01 level of significance. So the null hypothesis that "There is no significant relationship between Intelligence and Academic Achievement of secondary school students" is not retained. Hence, there exists a significant correlation. It indicates that academic achievement and intelligence of secondary school students are positively correlated with each other.

FINDINGS

1. It was found that there is a significant difference in intelligence of government and private secondary school students. Private school students are found more intelligent as compared to government school students.
2. There is a significant difference in academic achievement of the secondary school students having high and low intelligence. Academic achievement of the secondary school students with high intelligence is far better than students with low intelligence.
3. It is found that there is a significant relationship between academic achievement and intelligence of secondary school students.

This study shows that Intelligence fully influences on academic achievement. Intelligence increases learning ability and students' academic performance. It shows that students with more intelligence always performed better than students with low intelligence. However, further research is still needed to clarify measurement and conceptual issues underlying this relationship.

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