

ACADEMIC PERFORMANCE AND INTELLIGENCE QUOTIENT OF SECONDARY SCHOOL STUDENTS IN BILASPUR, CHHATTISGARH

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ABSTRACT

Intellectual ability is measured as the intelligence quotient (IQ), one of the determinants of students' school performance. It affects academic performance, future individual health, and social well-being and is, therefore, important for public health. The aim of the study was to determine the intelligence quotient (IQ) and academic performance of secondary school students in Bilaspur, Chhattisgarh. Correlation and ANOVA statistical analysis show that there is a positive significant relationship between intelligence quotient and academic performance. Similarly, there is a highly significant correlation between a secondary school student's emotional quotient and academic performance. Academic performance of secondary school students is high, average, and low intelligence quotient groups differ significantly from each other. The suggestions were made based on the finding of the study supportive and stimulating atmosphere is very necessary for secondary level students to progress in their academic performance and for reaching their aim or goal and to develop intelligence quotient and to enhance intelligence quotient of secondary school students.

Keywords: Intelligence Quotient, Academic Performance, Secondary School Students

INTRODUCTION

Academic achievement or performance is the extent to which a student, teacher, or institution has attained their short or long-term educational goals. Completion of educational benchmarks such as secondary school diplomas and bachelor's degrees represent academic achievement. Intelligence is a person's overall or global ability to act purposefully, think rationally, and deal effectively with the environment. General intellectual functioning (the intelligence quotient) usually refers to one's global or overall level of intelligence. Intelligence quotient (IQ) is important for education, self-care, and independent participation in activities such as later life, employment, and living independently. 'Global IQ' measures a person's overall 'ability to understand complex ideas, adapt effectively to the environment,

learn from experience, engage in various forms of reasoning, and overcome obstacles by thinking' reflect'. Intelligence is influenced by both environmental and biological factors. Intelligence and academic performance are different but interrelated concepts as intelligence is said to be one of the most important cognitive factors responsible for variation in achievement scores.

An intelligence quotient (IQ) is a total score derived from a set of [standardized tests](#) or subtests designed to assess [human intelligence](#). Intellectual ability (measured as IQ quotient or IQ) is said to be one of the determinants of children's poor school performance. Academic achievement affects future individual health and, therefore, is of significant public health concern. A good education has been linked to better employment, higher income, and higher socio-economic status; whereas poor school performance is accompanied by the risk of dropping out of school, reducing future income and thus perpetuating the inter-generational cycle of poverty. Nevertheless, there are conflicting reports in the literature regarding the relationship between IQ and academic performance. Several factors such as nutrition, education, socio-economic status, age, gender, type of school, and family size can affect IQ and academic performance. The aim of this study is to determine the intellectual quotient and academic performance of secondary school students in Bilaspur, Chhattisgarh.

REVIEW OF LITERATURE

Rosette and Ciarochi (2005) have explored the relationship between emotional intelligence (EI), personality, intelligence quotient or cognitive intelligence, and leadership effectiveness. The authors used correlational and regression analysis to arrive at the results that higher levels of EI are associated with higher leadership effectiveness.

Cic, Mulej&Zizek (2018) have explored the role of multiple intelligences in bridging the gap in the value system of employees, which ultimately leads to success. The researchers propose in their findings that when more holistic intelligence is incorporated into the day-to-day behavior of individuals, the system leads to a socially accountable society at large.

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Nigeria, Ogundokun, et al (2010) conducted a study on emotional intelligence and academic achievement; the study examined the moderate effect of emotional intelligence, age and academic motivation on the academic achievement of secondary students. Study results show that emotional intelligence has a significant relationship with academic performance.

Tella et al., (2011) conducted a relevant study on the relationship between emotional intelligence, parental involvement, and academic achievement of secondary school students. Study results suggest that both emotional intelligence and parental involvement can predict academic achievement and therefore emotional intelligence and parental involvement have a positive relationship with academic performance. Thus, the study relates that if parental involvement is passive it will result in poor academic performance.

Petrids et al. (2002) revealed that while the trait of emotional intelligence is relevant to student academic performance, it also determines student deviant behavior in school, especially for those who are vulnerable students.

Statement of the problem: The present study is entitled “Academic Performance and Intelligence Quotient of Secondary School Students in Bilaspur, Chhattisgarh.”

Objectives

1. To study the relationship between the academic performance and intelligence quotient of secondary school students.
2. To study the difference between the academic performance of secondary school students with high, average, and low intelligence quotient.

Hypotheses

1. There would be a significant relationship between academic performance and intelligence quotient intelligence of secondary school students.
2. There would be a significant difference in the academic performance of secondary school students with high, average, and low intelligence quotient.

Delimitations of the study

1. The present study is confined to the secondary school students of Bilaspur, Chhattisgarh only.

- The study is confined to the secondary school students of Chhattisgarh Board of Secondary Education (CGBSE) affiliated Government school only.

METHODOLOGY

Population and Sample of the study

In the proposed study, population referred to all the secondary school students studying in class 12th science of CGBSE affiliated school of Bilaspur, Chhattisgarh. To conduct the present study the researcher adopted the descriptive survey method. The sample for the study consisted of 100 (50 male and 50 female) students selected randomly from various secondary school students of Bilaspur, Chhattisgarh.

Research Tools used

Achievement Test in Science by Dr. S.C. Gakhar&Dr. Rajnish and the Verbal Intelligence Test by R.K. Ojha and K. Ray Chowdhury (2012) were used to collect data pertaining to academic performance and intelligence quotient of secondary school students.

Statistical Techniques

- Descriptive Statistics: Mean and Standard Deviation.
- Inferential Statistics: ANOVA and Pearson's coefficient of correlation analysis,

RESULTS AND INTERPRETATION

Academic Performance and Intelligence Quotient: The Researcher has used Pearson's coefficient of correlation analysis to measure the relationship between academic performance and intelligence quotient of secondary school students.

Table No. 1 Correlation between Academic Performance and Intelligence Quotient of Secondary School Students

S.N.	Variables	N	r	Sig.
1.	Academic Performance	100	.462	0.01
2.	Intelligence Quotient			

** Correlation is significant at the 0.01 level

The results in the above Table No. 1 above indicate that academic performance is significantly positively correlated with intelligence quotient and it indicates that a higher score on intelligence quotient will be the academic performance.

Comparison of the academic performance of secondary school students in high, average, and low emotional quotient groups

Table No. 2 shows analysis of Variance for different in academic performance of secondary school students in high, average and low emotional quotient

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	747.815	2	373.908	8.545	0.01
Within Groups	17372.082	97	43.758		
Total	18119.897	99			

Table No. 2 shows that the calculated F- value 8.545 is significant at 0.01 levels. This implies that there is a statistically significant difference in the mean academic performance of secondary school students with high, average, and low intelligence quotient levels.

Findings of the study

1. There exists a significant positive relationship between academic performance and intelligence quotient of secondary school students.
2. The higher the intelligence quotient the higher the academic performance of secondary school students.
3. From the analysis it is observed that the academic performance of secondary school students in high, average, and low intelligence quotient groups differ significantly from each other.

CONCLUSION

The paper discusses the relationship between academic achievement and the intelligence quotient of secondary school students. The study also shows that significant relationship between academic achievement and intelligence quotient. The higher the intelligence quotient

high will be the academic performance of secondary school students. The academic performance of secondary school students in high, average, and low intelligence quotient groups differ significantly from each other. The suggestions were made based on the finding of the study supportive and stimulating atmosphere is very necessary for secondary level students to progress in their academic performance and for reaching their aim or goal and to develop intelligence quotient and to enhance intelligence quotient of secondary school students.

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