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## NON-VERBAL INTELLIGENCE AND ACADEMIC ACHIEVEMENT AMONG ADOLESCENT STUDENTS: A COMPARATIVE STUDY

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### Abstract:

**Objective** of the study was to examine the non-verbal intelligence of the adolescent school going students. **Hypothesis:** There is no significant difference among the school going students with respect to their non-verbal intelligence. **Sample:** For the present study, total 300 students were taken. All the participants were divided into three groups; 100 high academic achievement group (Mean & SD  $13.78 \pm 85$ ), 100 average academic achievement group ( $13.95 \pm 81$ ) & 100 low academic achievement group ( $13.99 \pm 85$ ). The age range of participants was 13-15 years. Purposive sampling technique was used. **Tools:** The Raven Standard Progressive Matrices (SPM) was used. **Result:** Non-verbal intelligence was significantly high in high academic achievement group in comparison to other two groups.

### KEY WORDS:

Comparative study, non-verbal intelligence and school students.

### INTRODUCTION

Educators, trainers, and researchers have long been interested in exploring variables contributing effectively for quality of performance of learners (Battle & Lewis, 2002). These variables are inside and outside school that affect students' quality of academic achievement. These factors may be termed as student factors, family factors, school factors and peer factors (Crosnoe et al., 2004). However, the quality of students' performance remains at top priority for educators. It is meant for making a difference locally, regionally, nationally and globally because the adolescent years are a critical period of the lifespan and understanding the role that individual difference factors play in predicting the academic performance of youths is of supreme importance. It is well documented, for instance, that those who complete high school have improved financial outcomes over those who do not (Ceci & Williams, 1997).

A good student is often referred to as being 'intelligent', or 'well behaved', or 'academically successful'. Arising from this are the questions: Are there any connection between these domains? Is there a strong connection, between intelligence and academic achievement? Do students with high intelligence behave better? These and many more questions underscore the important place intelligence has been found to play in academic success. Goleman (1995) asserted that success depends on several intelligences and on the control of emotion. Specifically, he stressed that intelligence (IQ) alone is no more the measure of

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success. According to him intelligence account for only 20% of the total success, and the rest goes for other aspects of intelligences. Abisamra (2000) then queried that if this is found to be so, why the teachers don't begin to teach its components to students at schools? He then concluded that if other intellectual ability affects student achievement, then it is imperative for schools to integrate it in their curricula and thereby raising the level of students' success.

**METHODOLOGY:**

**Objective of the study:**

Non-verbal intelligence among school going adolescent students.

**Hypothesis:**

There is no significant difference among the school going students with respect to their non-verbal intelligence.

**Sample:**

For the present study 300 students were taken belonging to schools of Ranchi, Jharkhand. All the participants were divided into three groups on the basis of last 3 years performance of each student rated by the teacher/principal; 100 High academic achievement group (Mean & SD 13.78±.85), 100 Average academic achievement group (13.95±.81) & 100 Low academic achievement group (13.99±.85). The age range of participants was 13-15 years. Purposive sampling technique was used.

**Tool:**

Raven Standard Progressive Matrices (SPM) developed by Raven (1960). It is a test of nonverbal reasoning ability and general intelligence. The reliability correlation coefficient of the test is .87.

**Procedure of data collection:**

After the division of the subjects into three groups (A= High academic achiever, B= Average academic achiever, C= Low academic achiever) on the basis of their last three years academic performance graded by their teachers/principal, the subjects were called in a small room one by one, where proper seating arrangement was done. Rapport was established properly before administering the test. The instructions and the procedure were explained clearly as suggested by the author of the test. After that the non-verbal intelligence was measured with the help of Raven Standard Progressive Matrices (SPM). Following the same procedure, the whole data was collected.

**STATISTICAL ANALYSIS & DISCUSSION**

Mean Std. Deviation and F values of high academic achievement group, average academic achievement group and low academic achievement group on non-verbal intelligence variable.

Variables	High Achievement Group n (100) Mean±SD	Average Achievement Group n (100) Mean±SD	Low Achievement Group n (100) Mean±SD	F	df	P
Non-verbal intelligence						
Non-verbal Intelligence	67.82±23.76	43.30±24.96	35.99±25.87	44.89***	297	<.001

Result showed that the Mean of high academic achievement group was 67.82, Mean of average academic achievement group was 43.30 and Mean of low academic achievement group was 35.99. On non-verbal intelligence variable the difference between the three groups was highly significant  $F(297)=44.89$ ,  $p<.001$ . Null hypothesis had been rejected that there is no significant difference among the school going students with respect to their non-verbal intelligence. Alternative hypothesis was accepted that high academic achievement group was significantly high on non-verbal intelligence than average and low academic achievement groups.

Result

Non-verbal intelligence was reported to be high among high academic achievement group than other two groups.

**CONCLUSION**

To conclude, non-verbal intelligence is a confounding factor for academic achievement. Including these factors in school curriculum can help the teacher to understand students in a much better way and planning the studies and future accordingly.

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