

A CORRELATION BETWEEN INTELLIGENCE AND ACADEMIC PERFORMANCE OF IXth STD. STUDENTS - A STUDY

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ABSTRACT

Intelligence is the major Psychological aspects of an individual. Development of intellectual ability is depends on how we give a chance to the students to think in intellectual ways. Some schools take special efforts to develop these inborn abilities and some schools does not take the efforts. So researcher decided to conduct a survey to find out, is there any difference in intelligence on the basis of gender and type of schools and the interactive affect of these parameters on the Performance score of students? For this research, data was collected from Kolhapur city of Maharashtra State. After collecting and analyzing the data it was concluded that there is a significant difference between the mean scores of intelligences of grantable and non grantable school students. There is no significant difference between the mean scores of intelligences as well as academic Performance with reference to gender and school types. There is no interaction effect of gender and school types on intelligence. There is no interaction effect of gender and school types on academic Performance.

INTRODUCTION

In an educational process the performance of the students in a class is usually judged by their Performance score in the examinations, which is often considered as their academic Performance. The academic Performance has been treated as the main basis for admission and promotion of a student to his/her next class. It has also been taken as a criterion even in selection of the individual of vocational and professional courses. On the other hand intelligence is the ability and capacity to learn and carry out abstract thinking to respond appropriately to a new situation. Tewari (1987) refers to intelligence as closely related to intellect. Which includes observing, thinking, understanding, remembering etc. We understand that intelligence has a great role to play in academic activities. Freeman supported the proposition that abilities to adopt, to learn and to carry on abstract thinking are directly proportional to one's intelligence. Many studies reported that efficiency to learn is directly affected by number of pupil's characteristics like their mental maturity and related intellectual abilities. Under these presumptions various attempts have been made to study the relationship between intelligence of academic Performance .

Man is animal who thinks. The very precious gift for man given by nature is thinking power. Man has been evolved from a primitive man to a very developed literate human being. Man has not only used this super power intelligence for his development, but also tried to study about the structure and features of intelligence. What is intelligence? And which are the different factors of intelligence? Are the questions which were tried to answer by the psychologist like Binet, Thurman, and Bert etc. Many of them have tried to analyze intelligence.

According to **Bert** – The power of adjustment to relatively novel situation by organizing new Psycho-Physical combination is intelligence. **Spearman** has explained intelligence in two factor theory. One of it is general and another is specific. **Thurston** has explained seven factors of intelligence.

Ninth standard student is about 14-15 years old and this is adolescent stage. This is supposed to be a stormy age stage. Student at this stage undergoes tremendous changes, besides he is on carrier corner. After a year he has to decide the direction of his /her carrier. So this stage is very important to very student and so it is

important to study intelligence of student so that proper guidance could be provided to the student.

OBJECTIVES OF THE STUDY

- 1) To find out the intelligence of IXth std. students.
- 2) To find out the educational Performance score of 9th std. students.
- 3) To study the relationship among Intelligence and educational Performance of IXth std students.
- 4) To compare the intelligence and Performance score IXth std. student according to the gender and type of schools.

NULL HYPHESIS:

- 1) There is no significant difference between the scores of intelligence and academic Performance.
- 2) There is no significant difference between the mean scores of Intelligence and academic Performance with respect to gender and types of schools.

METHODOLOGY:

Research Design

The present study being a descriptive research. survey method was used for the present study.

SAMPLE DESIGN:

In Kolhapur city there are 94 secondary schools. By using purposive sampling method ten schools were selected for the study. The students from selected schools were selected by using simple random sampling method.

TOOLS OF DATA COLLECTION:

- 1) Intelligence test, advanced progressive matrices by J.C. Raven (1958).
- 2) For Academic Performance -Final examination marks from school record.

STATISTICAL TOOLS AND TECHNIQUES USED:

- 1) Mean
- 2) Co-rrrelation co-efficient.
- 3) t-test.
- 4) S.D.

Analysis and Discussion –

Table No. 1

Distribution of the Sample selected for the study

| Female student | Male students | Total sample |
|----------------|---------------|--------------|
| 150 | 150 | 300 |

Above table shows the total sample selected for the study. For the present study equal number of male and female students were selected.

The data were analyzed in the following tables to test the significance of differences in means to establish correlation between intelligence and academic Performance.

Table 2

Correlation between Academic Performance and I Q

| | Academic Performance | I Q percentile | d.f. | Level of signi. | Table value |
|----------------------|----------------------|----------------|------|-----------------|-------------|
| Academic Performance | 1 | .540 | 2 | 0.05 | 0.381 |
| IQ. percentile | | 1 | | 0.01 | 0.487 |

significant at 0.01 level

Table 1 shows the co-rrrelation between academic Performance and I Q.From the table the calculated IQ score was found to be 0.540 which is greater than the table t score 0.381 at 0.05 level of significance for df 2. The difference is significant . It is therefore concluded that there is significant co-relation between academic Performance and I Q. percentile of ixth std students Hence null hypothesis is rejected.

Table No. 2

Comparison between male and female students on the basis of Academic Performance and IQ percentile

| | Gender | N | Mean | Std deviation | t | df | Table t value at 0.01 |
|----------------------|--------|----|-------|---------------|------|----|-----------------------|
| Academic Performance | Male | 28 | 65.95 | 10.4709 | 0.92 | 2 | 9.92 |
| | Female | 32 | 63.50 | 9.9576 | | | |
| IQ percentile | Male | 28 | 38.35 | 23.9648 | 0.60 | | |
| | Female | 32 | 42.31 | 26.6862 | | | |

Table No. 2 shows the comparision between male and female students based on their academic Performance and intelligence. From the table the calculated t academic Performance score was found to be o.92 which is less than the table 't' value 9.92 at 0.01 level of significance for df 2. It is therefore concluded that there is no significant difference between the means of academic Performance of male and female students.

Table No. 2 shows the comparison between male and female students based on their academic Performance and intelligence. From the table the calculated t and IQ percentile was found to be 0.60 which is less than the table 't' value 9.92 at 0.01 level of significance for df 2. It is therefore concluded that there is no significant different between the means IQ percentile of male and female students.

Table- 3

Comparison between academic Performance and IQ percentile on the basis of school type.

| | School Type | N | Mean | Std Deviation | t value | df | Table t value at 0.01 |
|----------------------|---------------|----|-------|---------------|---------|----|-----------------------|
| Academic Performance | Grantable | 40 | 64.21 | 10.32 | 0.45 | 2 | 9.92 |
| | Non Grantable | 20 | 65.49 | 10.11 | | | |
| IQ Percentile | Grantable | 40 | 42.67 | 27.46 | 0.95 | | |
| | Non Grantable | 20 | 19.12 | 19.12 | | | |

Table 3 shows the Comparison between academic Performance and IQ percentile on the basis of school type.

From the table it is observed that calculated 't' score of academic Performance of was found to be 0.45 which is less than table t value 9.92 at 0.05 level of significance for df 2.The difference is not significant. It is therefore concluded that there is no significant association between academic Performance and IQ percentile on the basis of school type.

Also calculated 't' score of IQ percentile was found be 0.95 which is less than the table 't' score 9.92 at 0.01 level of significance for df 2. The difference is not significant. It is therefore concluded that There is no significant difference between the means of IQ percentile of grantable and non grantable school students.

Results

- 1) There is no significant difference between the means of academic Performance of grantable and non grantable school students.
- 2) There is no significant difference between the means of IQ percentile of grantable and non grantable school students.
- 3) There is a significant co-relation between academic Performance and IQ of ixth std. students.

Educational Implication: -

The intelligence scores are helpful for understanding the level of intelligence of student so the school management and teacher can plan the programs and implement it very effectively to develop the concern ability by doing some concrete work and both these abilities may help to perform academic best.

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