

Analysis of Relationship between Academic Achievement and School Intervention of class X students

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Abstract

Different expedient were adopted to find out the relationship between academic achievement and school intervention in various categories of schools under study. To comprehend the views of headmasters and students, a sample comprising with 55 headmasters and 550 students of class X in different categories of schools was taken on the basis of simple random sampling. The academic achievement of 550 students was assessed on the basis of marks scored by them in the last annual examination. The modified form of interview schedule developed by Mohanty (1988) was administered on headmasters of those schools for collection of data on school intervention. The study reveals that there is significant difference in academic achievement of students studying in different categories of schools. Significant difference in school intervention score between government in school intervention score between ST & SC Development Department and government schools was discovered. In case of school intervention score between ST & SC Development Department and non-government schools a marked difference has been found.

However, there is no significant relationship between academic achievement and school intervention in government and non-government schools. There is marked relationship between academic achievement and schools. There is marked relationship between academic achievement and school intervention in the schools managed by ST & SC Development Department. It is an admitted fact that intellectual capability is a key to scholastic achievement. The present study concentrates to find out the inherent relationship between academic achievement and school intervention on class X students.

Introduction

Now-a-days school programme has gone beyond the text-books and is necessarily connected with the practical activities of students and with that of the community. Educational achievement is thus a result of the time to time expenditure by the government on priority area. Consequently the efforts of the teachers, students and the types of schools regulate the academic achievement. Even motivation of the students and quality teaching of teachers also heighten the academic achievement. More importantly the educational environment and background of parents also play a constructive role in this regard. Intervention factors like remedial teaching, organization of PTA, broadcasting programmes and co-curricular activities have their definite say.

Excellency in the academic achievement of students can be easy, provided the impact of the innovation practices of schools on students are properly identified and assessed. Hence the relationship between academic achievement and school intervention needs a detailed study. (Several researches established the relationship between academic achievement and school intervention (Sandy, 1988 Kwari, 1989, Bank-Williams, 1991; Moore, 1991; Kaiser, 1991; Perkins, 1991). In addition Sharma (1984) completed a study which indicated parental education was highly associated with the academic achievement of their sons and daughters. Veeranghavan and Samal (1998) found a significant difference in the academic performance of students in terms of teacher effectiveness. However, Mohanty (1998) found negative correlation between academic achievement and school interventions. Similarly Dickson (1988) found a significant difference between the academic achievement of students who attended the Magnet School and students who attended Non-Magnet school.

Objectives

The following objectives were formulated for the study:

- To find out the effect of school interventions on academic achievement in different categories of schools.
- To assess interrelationship between academic achievement and interventions provided in different categories of schools.

Hypotheses

1. There is no significant difference in academic achievement score of students studying in different categories of schools.

2. There is no significant difference in school intervention score in different categories of schools.
3. There is no significant relationship between academic achievement of students and school intervention scores in different categories of schools.

Methodology

Sample - In order to understand the views of the Headmasters and Students, a sample comprising with 55 Headmasters, 550 Students of class X of different categories of schools in the district of Dhenkanal, Orissa, were taken on the basis of simple random sampling techniques. Table 1 depicts the detail distribution of the sample of Headmasters and Students taken for the study.

Table 1: Distribution of Headmasters, students and schools in the sample

Categories	Headmasters	Students	Schools
Schools managed by ST &SC Development Department.	4	40	4
Government Schools	14	140	14
Non - Government Schools	37	370	37
Total	55	550	55

Tools

1. No specific standardized scale has been used for the measurement of school achievement. The school achievements of 550 students of different categories of schools were taken from the last annual examination. This summated score was accepted as school achievement index. This total achievement index was converted to 100.
To assess the academic achievement, the marks of the last annual examination of the same students were collected from the office records as provided by the Headmaster.
2. With a view to collecting the data on school intervention from the head of the institutions, modified form of interview schedule developed by Mohanty (1988) was referred. It was administered on, Headmasters of three categories of schools. The schedule was prepared to collect data on the following aspects:
 - a) Resource status of school
 - b) Physical facilities available in the school

- c) Academic environment of the school
- d) Provision of remedial teaching in the school
- e) Parent Teacher Association
- f) Parent / Guardian meeting
- g) Observation of annual day in the school
- h) Provision of mid-day meals in the school
- i) Use of Broadcasting programme in the school
- j) Facilities of co-curricular activities in the school
- k) Staff council meeting

The heads of all the 55 schools under different categories of Dhenkanal district were interviewed with the help of tape recording.

Analysis and Discussion:

The data were analyzed in the following Tables to test the significance of differences in means and to establish correlation between academic achievement and school interventions provided.

Table 2: Difference between means of academic achievement in different categories of schools

SL.NO	Categories	Mean	Standard Deviation	Sample Size	't' value
1.	Schools managed by ST& SC Development Department	29.36	9.02	40	$t_{12}=7.73^*$
2.	Government schools	41.19	6.59	140	$t_{23}=7.81^*$
3.	Non- Government schools	47.52	11.26	370	$t_{31}=11.79^*$

Significant at 0.01 level

The above table shows that the mean academic achievement of schools managed by St & SC Development Department significantly differs from the mean academic achievement of government schools at 0.01 level and government schools have higher mean score than that of the schools managed by ST & SC Development Department.

Further it is seen from the above table that the mean academic achievement of government schools significantly differs from that of the non-government schools at 0.01 level and non-government schools have higher mean scores than the government schools. Similarly, the above table shows that the mean academic achievement of non-government schools differs from the mean academic achievement of schools managed by ST & SC Development Department at 0.01 level and non-government have higher mean scores than the schools manage by ST & SC Development Department. This shows that all categories of schools differ significantly from one another as regards the academic achievement of the learners.

Table 3: Difference between means of school intervention in different categories of schools

SL. No	Categories	Mean	Standard Deviation	Sample size	't' value
1.	Schools managed by ST & SC Development Department	58.5	3.57	4	$t_{12}=9.14^*$
2.	Government schools	39.57	3.68	14	$t_{23}=0.36^*$
3.	Non- Government schools	39.97	3.55	37	$t_{31}=9.91^*$

Significant at 0.01 level

The above table shows that the mean school intervention of schools managed by ST & SC Development Department significantly differs from the mean school intervention of government schools at 0.01 level and schools managed by ST & SC Development Department have higher mean score than that of government schools.

In case of government and non-government schools table 3 states that the mean school intervention score of government schools does not differ significantly from the mean school intervention score of non-government schools at 0.01 level and non-government schools have higher mean scores than that of government schools.

Similarly the above table indicates that the mean school intervention score of non-government schools significantly differs from the mean school intervention of schools managed by ST & SC Development Department at 0.01 level and ST & SC Development Departmental schools have higher mean scores than the non-government schools, there by indicating best school interventions in schools managed by ST & SC Development Department.

The analysis of the correlation between academic achievement and school interventions in different categories of schools indicated that correlation (0.44) is substantial and there is marked relationship between these variables in ST & SC Development Departmental schools. But co-efficient of correlations between the same two variables in government schools (0.02), non- government schools (0.03) and in total sample (0.03) could not establish any relationship.

Main Findings

1. Academic achievement of students varies from school to school.
2. There is conspicuous difference in school intervention score between government and non- government schools but it is reverse in case of ST & SC Development Department and government schools and the same trend is found with regard to ST & SC Development Department and non –government schools.
3. Academic achievement and school intervention do evidently possess no relationship in government and non-government schools. On the contrary, it is absent in the schools managed by ST & SC development Department.

The findings of the study make it evident that school intervention programmes affect the achievement of the students in different ways. In ST & SC Development Departmental schools it affected the academic achievement of students positively. The study of Mohanty (1988) supports the view. But in government and non- government schools it could not establish any relationship.

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