

# INFLUENCE OF PARENTAL EDUCATION ON ACADEMIC PERFORMANCE OF SECONDARY SCHOOL STUDENTS IN SCIENCE

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## Abstract

The present study aimed to investigate the influence of Parental Education on academic performance of secondary school students in science. The sample of the study consisted of 168 students of class X and out of these 168 students 100 were boys and 68 were girls randomly selected from 3 secondary schools of Aligarh. For the present study the researcher used Socio- Economic Status Scale developed by Dr Meenakshi in 2011 for finding educational status of parents and academic performance was taken from previous class annual exam marks in science. Pearson Product Moment Correlation and Linear Regression were used for analysis of data. The results showed that there was significant and positive relationship between Parental Education and academic performance of secondary school students in science.

Key Words: Parental Education, Academic Performance, Secondary School Students

## 1. Introduction

Education is an important tool of development. It broadens mind, differentiate good from bad and well from terrible and helps us to use our environment to the best of our potential for the well being of us as well as others (Sabzwari, 2004). According to Battle & Machel (2002) education plays a key role in every field and plays a very important role in the development of human capital and is related to our personal well being as well as provide opportunities for better living. According to sociologists education is an instrument of social change and it is the parents who nurtures the child so it is very necessary to know the impact of parental education on academic performance of their children. Home environment also plays an important role in upbringing of children and if the parents are educated then they would provide better opportunities for learning to their children and the motivation level of such children would increase by the positive influence of their home environment. Dave and Dave (1971) suggested that the maximum number of rank holders belonged to families where parents were highly educated and maximum number of failed students were from those families whose parents had low education. Jabor, Machtmes, Kungu, Buntat and Nordin (2011) investigated how does parent's educational status influences the achievement in science of high school students. Academic performance in this study was measured from GPA score in science of high school and data for this study was collected from National Assessment of Educational Progress (NAEP) High School Transcript Study (HSTS) 2005 in U.S. The findings of the study showed that there was significant difference between GPA scores in science and parent's educational status and it was also found that that effect size was small.

Suresh, (2012) studied the impact of parents' socioeconomic status on parental involvement at home for high achievement Indian students of Tamil school in Malaysia, and it was found that children whose parents had high educational qualifications performed academically better than their counterparts whose parents were uneducated. Femi (2012) found a significant effect of parental qualification on student's academic performance. It was also found by Ahmad (2013) that children who performed worse at school were from those families whose parents had low education whereas children whose parents had high education performed well at school.

Musarat (2013) studied a sample of 250 students from University of Sargodha, Pakistan, and found out that there was a significant relationship between parental education and students G.P.A. He also found that mother's education had significant effect on students' GPA. Ekber (2013) studied 691 undergraduate senior students at the University of Suleyman Damirel and found that students from parents with highly educated background

performed academically better than their peers from uneducated parents. **Bakar, Mamat and Ibrahim (2017)** studied the impact of parental education on secondary school student's academic performance in Kuala Terengganu, Malaysia. Descriptive Survey Research design was used and stratified random sampling technique was used to collect the sample of 200 students by using self-administered questionnaire. The findings of the study showed that children of parents with high educational status performed better than those with low educational status.

## 2. Objectives of the study

- 1.To study the relationship between Parental Education and Academic Performance of Secondary School Students in Science.
- 2.To find out the effect of Parental Education on the Academic Performance of Secondary School Students in Science.

## 3. Hypothesis

1. There is no significant relationship between Parental Education and Academic Performance of Secondary School Students in Science.
2. There is no significant effect of Parental Education on the Academic Performance of Secondary School Students in Science.

## 4. Methodology

**4.1 Population:** All the secondary schools of Aligarh .

**4.2 Sample:** It consisted of 168 students of class X and out of these 168 students 100 were boys and 68 were girls. Total sample was collected from 3 secondary schools of Aligarh.

**4.3 Instrument used:** For the present study the researcher used Socio- Economic Status Scale developed by Dr Meenakshi in 2011. The scale was divided into 7 parts – (Education, Profession, Monthly Income, Property and Locality) on a point scale and the scores ranged from 3 to 10 depending upon the part of the scale under study. Its Test – Retest Reliability was found to be 0.82. For finding academic performance, previous class annual exam marks in science were taken.

**5. Data Analysis:** The statistical techniques used in this research were correlation and regression analysis of data.

**6. Findings:** The following were the finding of the study

Objective1.To study the relationship between Parental Education and Academic Performance of Secondary School Students in Science.

Table 1: Relationship between Parental Education and Academic Performance of Secondary School Students in Science

		Correlations	
		Science	Educational Qualification
Science	Pearson Correlation	1	.236**
	Sig. (2-tailed)		.002
	N	168	168
Educational Qualification	Pearson Correlation	.236**	1
	Sig. (2-tailed)	.002	
	N	168	168

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table clearly showed that there exist a significant and positive correlation between Parental Education and Academic Performance of Secondary School Students in Science and value of coefficient of correlation (r) came out to be 0.236. It means that if parents are more educated then their children will perform better in science and if they are less educated then the academic performance of their children will be low. So therefore the hypothesis which states that “*There is no significant relationship between Parental Education and Academic Performance of Secondary School Students in Science.*” is not accepted.

Objective2. To find out the effect of Parental Education on the Academic Performance of Secondary School Students in Science.

Table 2: Model Summary of Linear Regression Analysis

Model Summary				
Predictive variable	R	R Square	Adjusted R Square	Std. Error of the Estimate
Parental Education	.236 <sup>a</sup>	.056	.050	14.359

From the above table it was clear that Parental Education significantly predicts the academic performance of secondary school students in science. It was found that Parental Education explained 5.6% of the variance as showed by linear regression factor R Square = .056.

Table 3: Summary of ANOVA for Regression Analysis

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2014.671	1	2014.671	9.771	.002 <sup>b</sup>
	Residual	34227.704	166	206.191		
	Total	36242.375	167			

Significant at 0.05 level

a. Dependent Variable: Academic Performance in Science

b. Predictors: (Constant), Educational Qualification

From the above table it was found that the model had statistically significant F ratio which was  $F= 9.771$ ,  $p < 0.05$ . So it can be concluded that the regression model was acceptable and parental education significantly affected the academic performance of secondary school students in science. Therefore, the above stated hypothesis “*There is no significant effect of Parental Education on the Academic Performance of Secondary School Students in Science*” was rejected.

Table 4 : Coefficient of Regression Analysis

#### Coefficients<sup>a</sup>

Predictive Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	45.655	2.928		15.595	.000
Parental Education	.530	.169	.236	3.126	.002

*Significant at 0.05 level*

a. Dependent Variable: Academic Performance in Science

From the above table the standardized coefficients, bearing t value for parental education was found to be Beta= 0.236 and  $t = 3.126$ ,  $p < 0.05$ . Thus it showed that an increase in per unit of parental education would result in increase by 0.530 of academic performance of secondary school students in science.

## 7. Conclusion

At the end, after discussing the findings of the present study it is concluded that parental education had a significant effect on the academic performance of secondary school students in science.

The results of this research supports the work of Dave and Dave (1971), Williams, 1980; Teachman, 1987, Suresh, (2012), Femi (2012), Ahmad (2013), Musarat (2013), Ekber (2013) in which all revealed that parent's education has significant influence on students' academic performance.

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