

THE IMPACT OF SOCIOECONOMIC STATUS ON STUDENTS' ACADEMIC ACHIEVEMENT

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DOI: <https://doi.org/10.5281/zenodo.8167782>

Published Date: 20-July-2023

Abstract: The objective of this research was to investigate how a student's socioeconomic status impacts their academic performance. A descriptive survey method was used to conduct the study on all elementary level public sector students in district Mansehra. A two-stage random sampling technique was applied to select the sample. To determine the socioeconomic status of the students, a questionnaire was designed, while a test consisting of 40 multiple-choice questions on Math and English was used to measure their academic achievement. Reliability of the instrument was measured using Cronbach's alpha, resulting in a value of 0.85 for the questionnaire and 0.83 for the test. Mean, percentage, and frequency were used for data analysis. The study concluded that students from families with average financial status performed better academically than those from below-average financial status families. Additionally, students whose parents had higher levels of education scored higher on average compared to those whose parents had lower levels of education. These findings demonstrate the importance of socioeconomic status and parental education in predicting academic success and the need for targeted interventions to address disparities in educational outcomes among students from diverse socioeconomic backgrounds.

Keywords: Socioeconomic Status, Academic Achievement.

1. INTRODUCTION

or many years, the impact of socioeconomic status (SES) on academic achievement has been an important topic in the field of education. SES refers to an individual's or family's social and economic standing in society, which is often measured by factors such as income, education, and occupation. According to the American Psychological Association's Task Force on Socioeconomic Status, SES is "the social standing or class of an individual or group, often measured as a combination of education, income, and occupation" (Juntunen et al., 2022). Several studies have investigated the relationship between SES and academic achievement aimed to explore the effect of SES on academic achievement and found a significant positive correlation between the two. Yulia (2017) also studied the impact of family SES on students' academic achievement, revealing that SES influences academic performance in various ways. In contrast, Pedrosa et al. (2006) found that students from deprived and low SES backgrounds performed slightly better than those from higher SES backgrounds. In a different study, Showkeen (2014) investigated the impact of SES on the academic achievement of science stream students at the senior secondary level. The study showed a significant positive correlation between SES and the academic performance of

science stream students. These studies highlight the importance of SES in predicting academic success and the need for targeted interventions to address disparities in educational outcomes among students from different socioeconomic backgrounds.

Socioeconomic status (SES) is an important variable that can affect the results of studies. Scarr and Weinberg (1978) discovered that a parent's level of education could be just as effective at predicting a child's academic achievement as other factors. However, Mercy (1982) disputed this, stating that while various indicators of SES, such as family income and parental education level, could predict a child's intelligence score, the mother's education level was a better predictor than the father's. It is evident that different components of SES can have varying impacts on particular cognitive abilities or academic achievements, as pointed out by Parcel and Menaghan (1990).

In recent years, researchers have shown increased interest in examining how a parent's education level and occupation can impact a child's development. To measure socioeconomic status, a two-factor index called the social position index has been used by various scholars, such as Parcel and Menaghan (1990). Another widely used measure is the socioeconomic index (SEI) developed by Duncan (1961) which estimates SES by considering the education level and income of different occupations. Additionally, the Michigan State Department of Education has provided a definition of SES that includes three components: family income, parent's education level, and parents' occupation. This definition has been utilized in numerous studies, such as those conducted by Hauser (1994) and Long and Pang (2016). Therefore, we have chosen to utilize this definition and assess family socioeconomic status by taking into account parents' educational attainment, occupational prestige, and income level.

Socioeconomic status is not only directly linked to academic achievement but also indirectly linked to it through multiple interaction systems, including students' ethnic status, grade level, and school/neighborhood location (Morris & Gennetian, 2003). suggest that family socioeconomic status not only provides home resources but also indirectly provides "social capital" through supportive relationships and collaborations between parents and schools. This social capital promotes the sharing of societal norms and values, which are necessary for success in schools. As a result, family socioeconomic status, which largely determines the location of the child's neighborhood and school, plays a significant role in determining academic achievement.

In addition to methodological factors, student characteristics are also likely to influence the relationship between socioeconomic status and academic achievement. Therefore, the present study aims to assess the impact of socioeconomic status on academic achievement among students.

This study aims to investigate the impact of socioeconomic status (SES) on academic achievement. The study hypothesizes that socioeconomic status would have a significant effect on academic achievement, as students from families with higher socioeconomic status may have greater access to educational resources and opportunities. The study investigates four specific aims: First, we analyze the correlation between family financial status and the academic achievement of students. Secondly, we measure the association between the level of education attained by fathers and the academic achievement of their children. Thirdly, we examine the impact of fathers' occupations on academic achievement. Fourthly, we explore the impact of fathers' income on academic achievement.

2. MATERIALS AND METHODS

2.1. Participants and Ethics Statement

The study conducted in 2023 in the District Mansehra of Khyber Pakhtunkhwa province in Pakistan was a cross-sectional survey. Relevant data was collected using a multistage random sampling technique. In the first stage, ten (10) schools were randomly selected from each tehsil, and in the second stage, fifteen (15) students were randomly chosen from each school. This resulted in a total sample size of four hundred and fifty (450) elementary school students from thirty (30) schools. According to Gay (2008), a sample size of 400 is adequate when the population size is greater than five thousand (5000).

2.2. Measurements

2.2.1. Demographic Characteristics and Measurement of Socioeconomic Status

Demographic information regarding gender, family financial status, parent's education level, parent's occupation, and parent's income, was obtained in this study. Responses were dichotomized as either yes or no/tick where appropriate.

2.2.2. Measurement of Socioeconomic status

Two instruments questionnaire and an academic achievement test were developed to collect the relevant data. Questionnaire was prepared for the elementary school students to explore their socioeconomic status. It consisted of four parts, part first of the questionnaire consisted of six items/statements about the financial status and education of the parents of elementary school students. Second part was about available facilities to elementary school students at home. This part had sixteen items with two (Yes/No) options. Third part of questionnaire comprised of thirteen statements. This part was prepared on Likert type scale, third part of the questionnaire explored academic support provided by the parents to their children. Fourth and last part of questionnaire consisted of eleven items related to social activities of the elementary school students. On the other hands, academic achievement test was prepared in two subjects i.e. Mathematics and English. The test had forty multiple-choice items. Four options were given with each item (one correct and three incorrect). Students had to choose correct option the test was prepared from the textbook of class 7th and 8th (Prescribed by Khyber Pakhtun Khawa textbook board). Maximum allowed time for attempting test was one hour (sixty minutes). Each correct option beard one mark.

To ensure the validity of the questionnaire and academic achievement test, a committee of experts in the field of education and social sciences was consulted for face and content validity, as well as item analysis for the achievement test. The item analysis revealed that nine items had high difficulty levels, twenty-one had moderate difficulty levels, and ten had low difficulty levels. Based on this analysis, some distractors were recommended for the test. The questionnaire was distributed to elementary school students to assess their socioeconomic status, and an academic achievement test was administered to assess their academic performance. The researcher personally visited the schools and administered the questionnaire and test, while ensuring that all ethical considerations were followed and that the data collected would only be used for the purposes of the research and kept confidential.

2.3. Statistical Analysis Method

It's great to see that you are familiar with the statistical software SPSS and have used it for data analysis. Using chi-squared tests for categorical variables is also an appropriate choice. It's also good to have clear categories for family financial status based on a reliable source.

When analyzing the data, it's important to keep in mind any potential biases or confounding variables that may impact the results. Additionally, it's important to report any limitations of the study, such as potential sampling bias or limitations in generalizability to other populations. Finally, it's important to interpret the results in the context of the existing literature and draw appropriate conclusions based on the findings.

Monthly income less than (Rs: 20,000) = Poor class

Monthly income (Rs: 20,000 to 35,000) = Working class

Monthly income (Rs: 35,000 to 50,000) = Lower middle class

Monthly income (Rs: 50,000 to 70,000) = Upper middle class

Monthly income (Rs: Above 70,000) = Upper Class

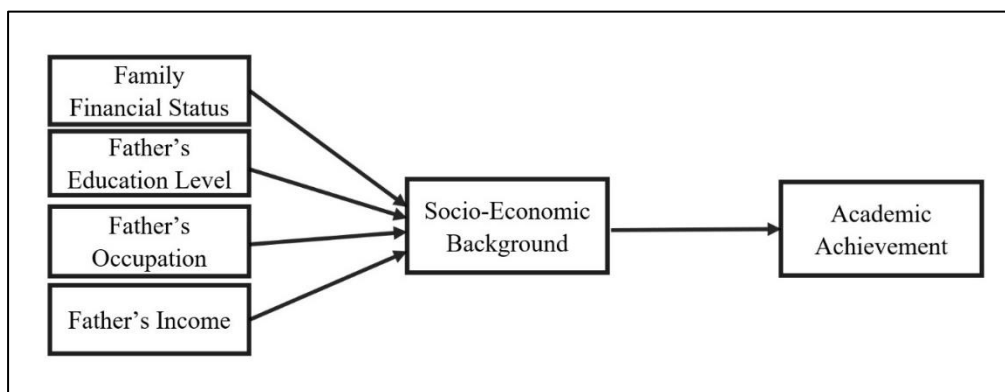


Figure 1: Research Model

3. RESULTS

3.1 Impact of Family Financial Status on Students' Mean Academic Achievement Scores in Percentage

Table 3.1 depicts the relationship between students' family financial status and their mean academic achievement scores in the subjects of English and Math. The results indicate that students from upper-class families attained a mean academic score of 78%, with a score of 75% in English and 81% in Math. In contrast, students from upper-middle-class families achieved a mean academic score of 67%, with a score of 68% in English and 66% in Math. Students from lower-middle-class families obtained a mean academic score of 55%, with a score of 56% in English and 54% in Math. Moreover, students from working-class families scored an average of 47%, with a score of 48% in English and 45% in Math. Finally, students from poor-class families achieved a mean academic score of 46%, with a score of 44% in English and 48% in Math. These results suggest that a positive correlation exists between students' family financial status and their academic achievement.

Family Financial status	f	Academic score in English	Academic score in Math	Mean Academic Score in Percentage
Upper class	55	75%	81%	78%
Upper middle class	70	68%	66%	67%
Lower middle class	90	56%	54%	55%
Working class	110	48%	45%	47%
Poor class	125	44%	48%	46%

3.2 Impact of fathers' Education level on their children's academic achievement mean academic score in percentage

Table 3.2 shows father's education level and their children's mean academic scores in the subjects of English and Math. The results indicate that children of illiterate fathers obtained a mean academic score of 44%, with a score of 47% in English and 41% in Math. Children of fathers who had primary level education attained a mean academic score of 48%, with a score of 46% in English and 50% in Math. Furthermore, children of fathers who completed middle school (up to 8th grade) achieved a mean academic score of 53%, with a score of 50% in English and 56% in Math. The children of fathers who had matriculation obtained a mean academic score of 61%, with a score of 60% in English and 62% in Math. Moreover, children of fathers with intermediate-level education scored an average of 60%, with a score of 55% in English and 65% in Math. Children of fathers who completed graduate-level education obtained a mean academic score of 69%, with a score of 60% in English and 78% in Math. The children of fathers who had a master's degree achieved a mean academic score of 89%, with a score of 80% in English and 82% in Math. Finally, children of fathers who completed MS/M.Phil level education scored an average of 77%, with a score of 72% in English and 82% in Math. These findings suggest that a positive correlation exists between the father's education level and their children's academic achievement.

Fathers' Education	f	Academic score in English	Academic score in Math	Mean Academic Score in Percentage
M.Phil.	16	72 %	82 %	77%
Master	24	80 %	98 %	89%
BA	25	60 %	78 %	69%
FA	34	55 %	65 %	60%
Matric	106	60 %	62 %	61%
Middle	56	50 %	56 %	53%
Primary	84	46 %	50 %	48%
Illiterate	105	47 %	41 %	44%

3.3 Impact of fathers' Occupation on their children's academic achievement mean score in percentage

Table No 3.3 shows that children whose fathers were laborers obtained a mean academic score of forty-six percent (46%), with fifty-five percent (55%) marks in English and forty-seven percent (47%) marks in math. In contrast, children whose fathers were farmers obtained a mean academic score of fifty percent (50%), with forty-eight percent (48%) marks in English and fifty-two percent (52%) marks in math. Children of teachers scored sixty-eight percent (68%) mean academic

score with sixty-five percent (65%) marks in English and seventy-one percent marks in math. Children of businessmen scored sixty-seven percent (67%) mean academic score with sixty-six percent (66%) marks in English and sixty-eight percent (68%) marks in math. Children of engineers scored fifty-seven percent (57%) mean academic score with fifty-five percent (55%) marks in English and fifty-nine percent (59%) marks in math. Children of drivers scored sixty-eight percent (68%) mean academic score with sixty-two percent (62%) marks in English and sixty-four percent (64%) marks in math. Lastly, children whose fathers had other professions scored fifty-two percent (52%) mean academic score with fifty percent (50%) marks in English and fifty-four percent (54%) marks in math. These findings suggest that fathers' occupation plays a significant role in their children's academic achievement.

Fathers' Occupations	f	Academic score in English	Academic score in Math	Mean Academic Score in Percentage
Labors	137	45	47	46%
Farmers	91	48	52	50%
Teachers	44	65	71	68%
Businessman	55	66	68	67%
Engineers	18	55	59	57%
Drivers	69	62	64	63%
Others	22	50	54	52%

3.4 Impact of fathers' Income on their children's academic achievement mean score in percentage

Table No. 3.4 shows the fathers' income and their children's mean academic scores in percentage. The results indicates that children of fathers earning less than Rs. 20,000 per month received 45% marks in English and 53% marks in Math, resulting in a mean academic score of 49%. Similarly, children of fathers earning between Rs. 20,000 to 35,000 per month received 50% marks in English and 53% marks in Math, resulting in a mean academic score of 55%. Children of fathers earning between Rs. 35,000 to 50,000 per month received 60% marks in English and 80% marks in Math, resulting in a mean academic score of 70%. Furthermore, children of fathers earning between Rs. 50,000 to 70,000 per month received 67% marks in English and 83% marks in Math, resulting in a mean academic score of 75%. Finally, children of fathers earning above Rs. 70,000 per month received 80% marks in English and 82% marks in Math, resulting in a mean academic score of 81%. These findings suggest that fathers' income has a significant impact on their children's academic achievement.

Fathers' Income	f	Academic score in English	Academic score in Math	Mean Academic Score in Percentage
Less than Rs 20,000	246	45	53	49%
Rs 20,000 To 35,000	89	50	60	55%
Rs 35,000 To 50,000	75	60	80	70%
Rs 50,000 To 70,000	29	67	83	75%
Above Rs 70,000	5	80	82	81%

4. DISCUSSION

The purpose of this study was to examine how a student's socioeconomic status affects their academic performance, which has been established in prior research to be influenced by various socioeconomic factors across different communities worldwide. Among the components of socioeconomic status analyzed in previous studies, family financial status, paternal educational level, paternal occupation, and paternal income were identified as significant contributors to academic achievement. The study found a positive correlation between family financial status and their children's academic achievement, consistent with similar research by Mante et al. (2021) indicating a significant link between parental involvement and academic success. Other studies, including Karunakaran et al. (2019) and Liu (2021), also found statistically significant relationships between family financial status and academic performance. These findings are consistent with previous research by Humlum (2011); Solanke and Narayanaswamy (2015) that identified a positive impact of socioeconomic status on student academic performance.

The aim of this study was to investigate how students' socioeconomic status affects their academic performance. Prior research has shown that various socioeconomic factors influence academic achievement in different communities worldwide. Furthermore, studies have found that when analyzing the components of socioeconomic status, variables such

as family financial status, paternal educational level, paternal occupation, and paternal income have a significant impact on students' academic achievement. The findings of the study revealed that there was a positive correlation between family financial status and the academic achievement of their children. Similar study conducted by Mante et al. (2021) found that there is a substantial link between parental involvement in schooling and kids' academic success. Karunakaran et al. (2019) found that there was a statistically significant relationship between family-financial status and the academic performance of students. Liu (2021) found family is the foundational setting father is in a rush to offer all financial resources to their children in order for them to attain great academic achievement. The present study verify the findings of Humlum (2011);Solanke and Narayanaswamy (2015) which also found a positive impact of Socio-economic Status on student's academic performance or achievement.

Furthermore, the study found a positive correlation between the educational level of fathers and their children's academic performance. These results align with Li and Qiu (2016) research, which demonstrated that parental educational attainment significantly impacts children's academic achievement. Sanchez et al. (2013) also identified parents' education, expectations, socioeconomic status, and family size as crucial factors influencing academic achievement. The researchers utilized a logistic regression model to determine the strongest predictors of high academic achievement, and found that parents' educational level, expectations, socioeconomic status, family size, family type, and control over children's homework were significant predictors.

Furthermore, the most recent research has demonstrated a positive correlation between the occupational status of parents and their children's academic achievement. These results are consistent with the findings of Muhammad and Abu-Bakr (2015), who investigated the influence of parents' occupation on academic performance. Their study revealed that students whose parents were employed in formal occupations tended to outperform those whose parents held informal jobs. In addition, Mayer (2010) observed that children from affluent families had a higher likelihood of success in life than those from less privileged backgrounds. This observation is likely due to the fact that wealthy parents tend to invest more resources in their children, which leads to better outcomes for their offspring.

The study conducted found a positive relationship between paternal income and academic achievement. The research revealed that parents who offered educational support to their children had better academic outcomes than those who did not. These results are consistent with Pelaez (2001) study, which demonstrated that high-income families' children performed better in academics than those from low-income families. Likewise, conducted a similar study in China, examining the early years' income of 407 students and evaluating their reading abilities, family setting, and academic performance. The study was methodologically rigorous, and the results showed that family income significantly predicted children's learning outcomes. Moreover, children with high family income in their early years may be admitted to specific schools, which can significantly influence their academic success compared to those with high family income later in their education (Humlum, 2011).

Although the present study boasts of various strengths, such as its large sample size and robust methodological approaches, it has some limitations. For example, the study only used four indicators to measure socioeconomic status (SES), which is a common limitation in research investigating the impact of SES on academic achievement. Additionally, the study's generalizability may be limited since it only recruited participants from a specific province in Pakistan. Moreover, the study did not consider contextual factors like school quality and resource availability, which could influence the relationship between SES and academic achievement. Finally, since SES and academic achievement can differ significantly across various settings, cultures, and populations, the study's findings may not be applicable to other contexts.

5. CONCLUSION

Socioeconomic status plays a crucial role in determining academic achievement, as students from higher socioeconomic backgrounds typically outperform their counterparts from lower socioeconomic backgrounds who face various challenges that hinder their academic progress. These challenges include limited access to educational resources, inadequate housing, poor nutrition, and lack of parental involvement. Addressing these challenges can help to reduce the achievement gap between students from different socioeconomic backgrounds. Effective strategies include providing early childhood education programs, increasing school funding, and providing support for low-income families. It is important to raise awareness among policymakers, educators, and the wider community about the impact of socioeconomic status on academic achievement. Future studies should focus on identifying additional strategies to reduce the achievement gap between students from different socioeconomic backgrounds. By addressing this important issue, we can work towards creating a more equitable and just society where academic success is not limited by financial status.

Informed Consent Statement: Informed written consent was obtained from all subjects involved in the study.

Data Availability Statement: Data supporting reported results can be requested from the corresponding author upon request.

Conflicts of Interest: The authors declare no conflict of interest.

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International Journal of Novel Research in Education and Learning

 Vol. 10, Issue 4, pp: (39-46), Month: July - August 2023, Available at: www.noveltyjournals.com

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APPENDIX - A
List of Experts for Validation of Scale

S. No.	Experts	Qualification
1	Dr. Habib Elahi	PhD
2	Dr. Muhammad Ilyas Khan	PhD
3	Dr. Zahid Bashir	PhD
4	Dr. Javed Iqbal	PhD
5	Dr. Muhammad Iqbal Majoka	PhD

APPENDIX - B
Table of Specification for the tests of Mathematics and English
i) English

Chapter No./ Objective	Knowledge	Comprehension	Application	Total
1	1	1	1	3
2	1	1	1	3
3	2		1	3
4	1	2	1	4
5	2	1		3
6	1	1	2	4
Total	8	6	6	20

ii) Mathematics

S. No. Objective	Knowledge	Comprehension	Application	Total
1	1	1	2	4
2	1	1	2	4
3		1	2	3
4	1	1	1	3
5	1		2	3
6		1	2	3
Total	4	5	11	20