

Socio-Economic Factors Influencing Students' Academic Performance Among Public Secondary Schools in Ganze Sub-County, Kenya

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Abstract

This study investigates the influence of socio-economic factors on students' academic performance in Ganze Sub-County, Kenya, using a mixed-methods approach that combines both qualitative and quantitative data. Analyzing data from structured questionnaires and interviews with students, parents, and school principals, the research highlights the significant impact of parental education, income, involvement, and cultural beliefs on academic outcomes. The regression analysis reveals that parental education (beta = 0.309), income (beta = 0.170), involvement (beta = 0.426), and cultural beliefs (beta = 0.153) all positively correlate with improved academic performance. The study concludes that enhancing parental education and addressing economic disparities are crucial for boosting student achievements. Furthermore, it emphasizes the importance of parental engagement and supportive cultural attitudes in fostering academic success. The findings advocate for targeted educational programs and policies that address these socio-economic variables to create a more equitable and effective educational environment in Ganze Sub-County.

Keywords: Socio-Economic Factors, Academic Performance, Parental Education, Parental Involvement, Parental Income, Cultural Beliefs, Ganze Sub-County, Kenya, Educational Equity

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1. Introduction

Socio-economic factors, encompassing a broad range of economic and social influences, significantly shape individuals' lives and societal structures. These factors include elements like race, ethnicity, gender, education level, family background, cultural beliefs, and access to social services. Economically, factors such as income, job status, occupation, resource availability, and government policies also play crucial roles. These socio-economic elements collectively impact various life aspects, including health, education, housing, employment, and social mobility. Understanding the interplay of these factors is essential for addressing disparities and promoting equity within communities (Ghasemianpour, Bakhshandeh, Shirvani, Emadi, Samadzadeh, Moosavi-Fatemi, & Ghasemian, 2019; Hawkins, Charles, & Mehaffey, 2020)

Academic success is often measured through standardized tests, class participation, attendance, and assignments, and it is influenced by both external and internal factors. Socio-economic status, access to educational resources, and instructional quality are critical external factors, while intrinsic factors include intelligence, study habits, and motivation. Additionally, personal relationships, psychological health, and overall well-being also impact academic outcomes. The interconnected nature of socio-economic factors means that disadvantages in one area, such as lower income, can lead to restricted access to educational resources, thereby affecting academic performance (Camacho-Morles, Slempe, Pekrun, Loderer, Hou, & Oades, 2021).

Recent studies have highlighted a correlation between socio-economic status and academic achievement, particularly noting lower performance in students from socioeconomically disadvantaged backgrounds. For instance, research indicates that children from low-income families often attend underfunded schools, which

can impede their academic progress. This connection underscores the importance of considering social class and economic status when analyzing academic outcomes. Policies aimed at providing social support and enhancing educational resources can help bridge the gap and improve academic performance for students from all backgrounds (Mahmut, 2020; Gamazo & Martínez-Abad, 2020).

Parental income significantly influences students' academic success by facilitating access to additional educational resources. Studies have shown that students from higher-income families generally achieve better academic results, partly due to better-funded schools and greater access to educational supports. Conversely, schools in low SES areas often lack sufficient funding, negatively impacting student outcomes. The dropout rates are also higher among students from low-income families, indicating a broader systemic issue. Addressing these disparities requires a concerted effort to provide equitable funding and support, ensuring that all students have the opportunity to succeed regardless of their socio-economic background (O'Connell, 2019; Tompsett & Knoester, 2023; Browning & Rigolon, 2019).

2. Research Problem

The relationship between socio-economic conditions and academic achievement remains a contentious issue among educators, scholars, and policymakers. While it is generally agreed that socio-economic factors can influence academic performance, the extent and nature of this impact are debated. Some argue that socio-economic status significantly affects academic outcomes, citing evidence that students from low-income families often perform worse on standardized tests and have lower graduation rates. Conversely, others believe that socio-economic status is just one of many factors, noting that some students from disadvantaged backgrounds excel academically, while some from affluent families struggle. Ganze Sub-County in Kenya has exhibited consistently low academic performance, as reflected in its KCSE mean scores over the past five years. While socio-economic factors have been suggested as contributors, studies such as Njeri (2015) have not clearly linked these factors to academic achievement in the area. The literature presents mixed findings, with some studies highlighting the significant impact of socio-economic status on academic success, while others point to a complex interplay of variables. The specific dynamics at play in Ganze Sub-County remain under-explored and inconclusive.

3. Methodology

The study employed a mixed-methods approach, combining both qualitative and quantitative data collection tools, such as structured questionnaires and interviews. The target population includes students, parents, and school principals, with a carefully calculated sample size to ensure statistical validity. The use of cross-sectional survey design, informed by the works of Kothari (2017) and Marutha and Dikotla (2022) allows the researchers to capture data at a single point in time, facilitating a snapshot of current educational and socio-economic conditions.

The research is conducted in Ganze Sub-County, a region characterized by a diverse population and a primary focus on agriculture. The area includes 20 public secondary schools, serving as the study's focal points. The population targeted for the study comprises approximately 1200 individuals, including 20 school principals, 60 parents, and 1120 students. The demographic details and the socio-economic backdrop of Ganze Sub-County provide a rich context for exploring the relationship between socio-economic status and educational outcomes (Momanyi, 2021). Data collection methods include standardized questionnaires for quantitative analysis and interviews for qualitative insights.

The study placed a strong emphasis on ethical considerations, ensuring participant anonymity and confidentiality (Watts, Todd, Mulhearn, Medeiros, Mumford & Connelly, 2017). Researchers obtained informed consent from participants and relevant authorities, adhering to ethical guidelines throughout the study. Data analysis was conducted using SPSS for quantitative data, employing statistical techniques like correlation and regression to identify patterns and relationships (Kothari, 2017; Creswell & Creswell, 2017). The qualitative data were analyzed thematically, offering deeper insights into the experiences and perceptions of the participants.

4. Findings

4.1 Descriptive Statistics for Parents Education

The study explored the influence of parental education on students' academic achievement, the results of which are presented in Table 1. Respondents showed a high level of agreement with the statement "my parent went to school," reflected in a mean score of 4.02 and a standard deviation of 0.806, indicating moderate consensus. However, agreement was slightly lower for statements about college, secondary, and basic education. This suggests a generally positive perception of parental education among respondents. Supporting research, including studies by Holmes (2013) and Nicholas (2020), indicates that educated parents often prioritize their children's education, enhancing academic outcomes. Khan and Asghar (2021) found a significant positive correlation between parental education and student performance in Pakistan, especially among women. However, Koskei and Ngeno (2015) noted that parental education's impact on academic performance can vary.

The results imply that parental educational attainment has a significant influence on how well students do academically. Given that there is a positive association between parents' educational attainment and students' performance, it stands to reason that parents with higher levels of education will appreciate and support their children's education and create an environment that is favorable to learning. This emphasizes how crucial parental awareness and participation are to educational processes. Furthermore, given the moderate agreement across education levels, certain interventions may be able to close the gaps in parental engagement and support. Programs that promote parental involvement, especially from parents with lower levels of education, may be taken into consideration by educational institutions and policymakers as a means of reducing educational gaps and raising overall student accomplishment. The study emphasizes the necessity of an all-encompassing strategy that incorporates family involvement in instructional techniques.

Table 1 Parents Education

Parents Education	N	Mean	Std. Deviation
My parent attended school.	264	4.02	.806
I lack knowledge regarding the educational background of my parents.	264	3.86	.879
My parent obtained a university education.	264	3.81	1.080
My parent attended university.	264	3.50	1.160
My parent has obtained a secondary education.	264	3.29	1.382
My parent completed their primary education.	264	3.28	1.346
AVERAGES		3.63	1.109

Descriptive Statistics for Parents Education

4.2 Descriptive Statistics for Parents Involvement

The study revealed a high level of parental involvement in students' academic activities in Ganze Sub-County's public secondary schools, with mean scores and standard deviations indicating consistent engagement. Specifically, parents were notably active in reviewing their children's class notes (mean score: 4.27, SD: 0.675) and attending school meetings (mean score: 4.14, SD: 0.893). Additionally, a high level of familiarity with teachers' names (mean score: 4.13, SD: 0.843) and regular evaluation of academic accomplishments (mean score: 4.02, SD: 0.829) were observed. These findings suggest that students perceive a strong and supportive presence of parents in their educational journey, which is crucial for their academic success. The overall average score for parental involvement was 4.08, with a standard deviation of 0.839, indicating generally positive perceptions among students.

The study aligns with prior research highlighting the positive effects of parental involvement on academic outcomes. Gubbins and Otero (2020) and Harris and Robinson (2016) have shown that increased parental participation benefits both students and the school community. However, Pasiouras, Bouri, Roubaud, and Galariotis(2020) caution that cultural and socioeconomic factors influence this relationship, emphasizing the need for culturally sensitive approaches. Chen and Barnett (2020) focus on urban elementary schools, particularly noting the benefits of parental involvement for children from low-income families. Poudel and Subedi's (2024) research in Nepal underscores the importance of prioritizing parental engagement to enhance educational outcomes. Jaiswal and Choudhuri (2017) also note that authoritative parenting styles and high parental expectations are associated with better academic performance. This body of work collectively suggests

that parental involvement is crucial for academic success, particularly in public school settings.

Table 2 Parents Involvement

Parents Involvement	N	Mean	Std. Deviation
I often have my parent review my class notes.	264	4.27	.675
school meetings are attended by the parent.	264	4.14	.893
Everyone in the family is familiar with the name of the classroom instructor.	264	4.13	.843
My parent reviews my academic report at the end of each semester.	264	4.02	.829
a parent makes an office visit to check in on their child's academic performance.	264	4.01	.917
A parent can inspire their child to excel academically.	264	3.91	.879
AVERAGES		4.08	0.839

Descriptive Statistics for Parents Involvement

4.3 Descriptive Statistics for Parents Income

The study explored the perceptions of students in Ganze Sub-County regarding the impact of their parents' financial situation on academic support and success. It was found that students from various economic backgrounds felt supported in their academic endeavors, with average scores ranging from 4.05 to 4.30. This indicates a general sense of parental support regardless of economic status. However, students rated their parents' ability to provide non-essential luxuries lower, with an average score of 3.84 and a higher standard deviation of 1.013, reflecting diverse economic conditions among families. The overall positive view on the influence of parental affluence on academic performance, indicated by a mean score of 4.15 and a standard deviation of 0.748, suggests that students perceive their parents' financial status as beneficial to their schooling.

These findings align with previous research, such as Murphy's (2022) study linking low income with lower academic performance, emphasizing the challenges faced by students from less affluent backgrounds. Students' nuanced understanding of their families' economic conditions, particularly in terms of purchasing luxury items, highlights the importance of socioeconomic factors in educational outcomes. Chambers and Schreiber (2014) further explored how gender, race, and socioeconomic status intersect to affect academic achievement, underscoring the need for tailored interventions. Hossain and Rahman (2021) also identified a positive correlation between socioeconomic status and academic success, stressing the role of structural factors. These studies suggest that while financial constraints can impact academic performance, factors such as parental involvement, financial aid, and strong student-teacher relationships can mitigate these effects.

Table 3 Parents Income

Influence of Parents Income	N	Mean	Std. Deviation
parent is self-employed.	264	4.30	.668
guardian provides support.	264	4.26	.655
parent has a white-collar job.	264	4.22	.728
parent is a small-scale farmer.	264	4.20	.638
parent is unemployed.	264	4.05	.788
parent affords luxuries.	264	3.84	1.013
AVERAGES		4.15	0.748

Descriptive Statistics for Parents Income

4.4 Descriptive Statistics for Participative Leadership Styles of Headteachers

The study on public secondary school pupils in Ganze Sub-County, Kenya, reveals that parents and guardians significantly support their children's education through financial and material means. High mean scores for statements like "parent provides learning materials to the learner" (Mean = 4.29) and "parent buys school uniform for the learner" (Mean = 4.30) reflect students' perception of strong parental support. These findings highlight the parents' efforts to provide essential educational resources, which are crucial for creating a conducive learning environment. The consistent financial contributions for both academic and extracurricular activities underscore the role of various forms of assistance in enhancing students' educational experiences.

These results align with broader research on the influence of socioeconomic status (SES) on educational outcomes. Studies like Murphy's (2022) emphasize the impact of financial resources on academic success, noting that poverty can hinder educational attainment. Hossain and Rahman's (2021) review further supports this, showing a positive correlation between SES and academic performance. The study's findings indicate that parents are aware of the importance of financial support, as evidenced by their contributions to school expenses and extracurricular activities. The positive perceptions of financial bursaries also highlight the need for additional funding sources to complement parental support, ensuring equitable access to educational opportunities for all students.

Table 4 Financial and Material Support

Financial and Material Support	N	Mean	Std. Deviation
A parent purchases a student's uniform for use at school.	264	4.30	.661
The parent supplies the student with educational resources.	264	4.29	.653
Educational outings and extracurriculars are funded by parents.	264	4.27	.741
The learner's education is supported financially by their guardian.	264	4.27	.754
The learner's parent pays for their school tuition.	264	4.21	.691
a bursary in learning helps the student out financially	264	4.17	.916
AVERAGES		4.15	0.748

Descriptive Financial and Material Support

4.4 Coefficients of the Regression Model

The co-efficient of the regression model were obtained from the analysis and presented. The regression equation is as shown below;

$$Y=0.106+0.252X_1+0.180X_2+0.366X_3+0.151X_4$$

Y –Students’ Academic Performance

X₁–Parents Level of Education

X₂–Parents Level of Income

X₃–Parental Involvement

X₄–Cultural Beliefs

Table 5 Coefficients of the Regression Model

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.106	.079		1.337	.182
Parents Level of Education(X ₁)	.252	.049	.309	5.171	.000
Parents Level of Income(X ₂)	.180	.027	.170	6.775	.000
Parental Involvement(X ₃)	.366	.052	.426	7.088	.000
Cultural Beliefs(X ₄)	.151	.033	.153	4.564	.000

a. Dependent Variable: Students’ Academic Performance(Y)

Coefficients of the Regression Model

The multiple regression analysis conducted in Ganze Sub-County, Kenya, sheds light on the distinct contributions of various factors to students' academic performance. The standardized coefficients in Table 5 reveal that each factor—Cultural Beliefs, Parental Involvement, Parental Income, and Parental Level of Education—significantly influences academic success, with p-values less than 0.05 indicating statistical significance. Notably, the Parental Level of Education has the highest standardized coefficient (Beta = 0.309),

suggesting that higher parental education levels are strongly associated with better student academic outcomes. This positive relationship underscores the importance of educational attainment in the family as a determinant of academic success. Parental Involvement also shows a substantial positive correlation (Beta = 0.426), highlighting the critical role parents play in their children's educational journey.

The findings align with existing research on the impact of socioeconomic factors on academic achievement. For instance, Murphy (2022) emphasized the link between poverty and lower academic performance, reinforcing the notion that improving socioeconomic conditions can enhance educational equity. Moreover, the study underscores the importance of parental involvement, particularly in students' extracurricular activities, as a key factor in creating positive educational environments. This is consistent with Chen and Barnett's (2020) research, which highlighted the vital role of parental involvement, especially for children from low-income families. The study also parallels findings by Gaber et al. (2020) and Fasih and Dar (2020), which suggest that psychological factors like emotional intelligence, self-regulation, and motivation are crucial for academic success. By integrating these diverse elements, the study advocates for a holistic approach to educational interventions, recognizing that socioeconomic status, environment, and mental well-being are intertwined in shaping students' academic trajectories.

4 Conclusion

The regression analysis findings reveal that each socio-economic factor significantly impacts students' academic achievements. Parental education, with a beta value of 0.309, shows a strong positive correlation with academic performance, underscoring the importance of educational attainment in the family. Similarly, parental income (beta = 0.170) and parental involvement (beta = 0.426) are positively linked to better academic outcomes. Cultural beliefs also play a role, with a positive correlation (beta = 0.153) suggesting that supportive cultural attitudes enhance academic success. These results align with previous research and emphasize the need for targeted educational programs and policies that address these socio-economic variables to improve student performance in Ganze Sub-County.

The research conducted in Ganze Sub-County, Kenya, reveals a complex and impactful relationship between students' socio-economic factors and their academic performance. The rigorous validation of the research instrument ensures reliable results, with regression and correlation analyses highlighting significant correlations between academic success and variables such as parental education, income, involvement, and cultural beliefs. Based on the findings, the study concluded that increasing parental education and addressing economic disparities can significantly enhance students' academic achievements, suggesting that targeted interventions could improve the overall educational landscape in Ganze Sub-County.

The study shows the importance of parental involvement and positive cultural beliefs in fostering academic success. Active parental engagement and supportive cultural environments are strongly linked to better academic outcomes, reinforcing the need for educational policies that promote these aspects. Initiatives that encourage parental participation and integrate cultural contexts into educational practices can create a more conducive learning environment, thereby improving student performance. Addressing these factors comprehensively will be crucial for enhancing educational equity and effectiveness in Ganze Sub-County, ultimately contributing to the region's educational advancement and student success.

REFERENCES

- Browning, M. H., & Rigolon, A. (2019). School green space and its impact on academic performance: A systematic literature review. *International journal of environmental research and public health*, 16(3), 429.
- Camacho-Morles, J., Slem, G. R., Pekrun, R., Loderer, K., Hou, H., & Oades, L. G. (2021). Activity achievement emotions and academic performance: A meta-analysis. *Educational Psychology Review*, 33(3), 1051-1095.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Gamazo, A., & Martínez-Abad, F. (2020). An exploration of factors linked to academic performance in PISA 2018 through data mining techniques. *Frontiers in Psychology*, 11, 575167.

- Ghasemianpour, M., Bakhshandeh, S., Shirvani, A., Emadi, N., Samadzadeh, H., MoosaviFatemi, N., & Ghasemian, A. (2019). Dental caries experience and socio-economic status among Iranian children: a multilevel analysis. *BMC public health*, 19, 1-8.
- Gubbins, V., & Otero, G. (2020). Parental involvement and low-SES children's academic achievement in early elementary school: New evidence from Chile. *Educational Studies*, 46(5), 548-569.
- Hawkins, R. B., Charles, E. J., & Mehaffey, J. H. (2020) Socio-economic status and COVID-19-related cases and fatalities. *Public health*, 189, 129-134.
- Hossain, M. M., & Rahman, M. M. (2021). Socioeconomic status and academic achievement: A review of empirical evidence. *Educational Research for Policy and Practice*, 20(1), 1-19.
- Jaiswal, S. K., & Choudhuri, R. (2017). A review of the relationship between parental involvement and students' academic performance. *The International Journal of Indian Psychology*, 4(3), 110-123.
- Kothari, C. (2017). research methodology methods and techniques by CR Kothari. *Published by New Age International (P) Ltd., Publishers*, 91.
- O'Connell, M. (2019). Is the impact of SES on educational performance overestimated? Evidence from the PISA survey. *Intelligence*, 75, 41-47.
- Mahmut, Ö. R. (2020). What does PISA tell us about performance of education systems?. *Bartın University Journal of Faculty of Education*, 9(2), 217-228.
- Marutha, N. S., & Dikotla, M. A. (2022). Mixed-method Approach Operational Paradoxes in Social Science Research: Views from the Authors. In *Handbook of Research on Mixed Methods Research in Information Science* (pp. 245-267). IGI Global.
- Momanyi, C. (2021). Effect Of Teaching Management Strategies on Academic Performance of Secondary Schools in Nyamira County; A Focus of Manga Sub County. *African Journal of Emerging Issues*, 3(2), 11-30.
- Murphy, S. (2022). Mathematics success against the odds: the case of a low socioeconomic status, rural Australian school with sustained high mathematics performance. *Mathematics Education Research Journal*, 34(4), 767-787.
- Njeri, M. M. (2015). *Influence of the school principals' leadership style on the school climate in secondary school in Ganze district, Kenya*. An Unpublished Master' thesis, University of Nairobi
- Pasiouras, F., Bouri, E., Roubaud, D., & Galariotis, E. (2020). Culture and Multiple Firm-Bank Relationships: A Matter of Secrecy and Trust? *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-020-04571-9>
- Poudel, P., & Subedi, D. (2024). How Does Parental Involvement Affect Students' Academic Performance in Public Schools? A Case Study. *Research Square (Research Square)*. <https://doi.org/10.21203/rs.3.rs-3656872/v1>
- Tompsett, J., & Knoester, C. (2023). Family socioeconomic status and college attendance: A consideration of individual-level and school-level pathways. *Plos one*, 18(4), e0284188.
- Watts, L. L., Todd, E. M., Mulhearn, T. J., Medeiros, K. E., Mumford, M. D., & Connelly, S. (2017). Qualitative evaluation methods in ethics education: A systematic review and analysis of best practices. *Accountability in Research*, 24(4), 225-242.