

## Individual Student Factors and Educational Success: Exploring Personal Influences on KCSE Performance in Samburu County's Public Secondary Schools

Authors

Lanyasunya A. Ropilo 

Author email: [ropilolanyasunya@gmail.com](mailto:ropilolanyasunya@gmail.com)

Moi University, Kenya.

### Cite this article in APA

Lanyasunya, A. R. (2024). Individual student factors and educational success: Exploring personal influences on KCSE performance in Samburu County's public secondary schools. *Journal of education and learning*, 3(1), 27-36. <https://doi.org/10.51317/jel.v3i1.675>



A publication of Editon  
Consortium Publishing (online)

### Article history

Received: 17.10.2024

Accepted: 20.11.2024

Published: 21.12.2024

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### ABSTRACT

This study aimed to explore the student-related factors influencing the performance of students in the Kenya Certificate of Secondary Education (KCSE) examinations in public secondary schools in Samburu County, a region predominantly inhabited by nomadic pastoralists. Despite various educational advancements in Kenya, such as increased enrollment and free secondary education, academic performance, particularly in Samburu County, has remained low. The average KCSE performance in the region has been consistently poor, with an average mean score of 4.4 (D+) over a ten-year period (2001-2010), highlighting the need for an in-depth investigation of the factors affecting academic outcomes. The study utilised a descriptive survey design, interviewing Form IV school leavers and high school principals through structured questionnaires. The research focused on student-related factors such as school attendance, KCPE performance, study time input, and post-high school goals. Data were analysed using mean, frequencies, and p-values. The study found that student-related factors such as inadequate study time, lack of school fees, lack of role models, and unclear post-high school goals significantly influenced KCSE performance. School attendance and prior academic achievement were also key factors, while relationships with peers were found to be less impactful. The study concluded that student-related factors, particularly those related to study habits and financial constraints, are critical determinants of KCSE performance in Samburu County. The study recommends addressing financial barriers, promoting role models, and enhancing students' academic goals to improve performance. Additionally, a multi-faceted approach is suggested, including community development programs to assist parents and flexible education models to cater to the unique needs of nomadic pastoralist students.

**Key terms:** Classmates, examinations, financial barriers, goals, role models.

## INTRODUCTION

The Kenya Certificate of Secondary Education (KCSE) is a critical determinant of academic success and future opportunities for students in Kenya. However, in regions such as Samburu County, located in the arid and semi-arid lands of Kenya, students' academic performance has remained significantly below the national average. Despite various efforts to improve educational access, including free secondary education, the county continues to face challenges that hinder students' ability to achieve better results. Samburu County, predominantly inhabited by the nomadic Samburu community, presents unique challenges, such as environmental factors (e.g., droughts), sociocultural influences, and economic hardships, which may contribute to the persistently low KCSE performance. While several studies have explored academic performance in Kenya, limited research has specifically focused on the student-related factors affecting KCSE outcomes in Samburu County.

This study aims to investigate the student-related factors that influence KCSE performance in public secondary schools in Samburu County. The research focuses on factors such as school attendance, prior academic performance (KCPE), study time input, and the student's post-high school goals. These factors are crucial in understanding the broader issues affecting academic success in the region. By identifying the key student-related influences, the study seeks to provide actionable recommendations to improve the educational outcomes of students in Samburu County. Understanding these factors will not only contribute to enhancing academic achievement but also help policymakers and educational stakeholders develop targeted interventions tailored to the unique needs of students in nomadic pastoralist communities.

## LITERATURE REVIEW

Motivation and self-help are most studied personal variables. When a student is motivated, he or she devotes his or her efforts and personality towards attainment of desired goal (Diaz & Anderman, 2009). Motivation maintains a relationship with level of performance and has been found to be element that most distinguishes those students to repeat a school

year from those being promoted to the next class. Those who repeat become bored and perform lower than those who are promoted to the next class (Diaz & Anderman, 2009).

Attendance at school has been cited as a significant factor in determining student performance, as identified by Stanca (2004). The results revealed that attending classes had a significant association with students' academic performance. Pat and Tyler (2007) researched factors affecting students' performance. They found out that gender, involvement in physical activities, cigarette smoking, alcohol consumption, hours of sleep per night, attitude towards schooling and stress have an impact on students' academic performance. Their results established that students perform well with five to seven hours of physical activity per week; the more cigarettes smoked and alcohol consumed, the overall average performance. The results also showed that students who got between seven to ten hours of sleep per night performed well. They also discovered that students who considered school very important performed better than those who considered school to be important. Students who hoped to complete a University degree did better than those who were unsure of their post-secondary future. Lao (1980) undertook a study on Differential Factors Affecting Male and Female Academic Performance in High School. The study was designed to explore which factors would influence grades (dependent variable) among high school students and whether these factors affect males and females differently. She suggested that intelligence accounts for only 25 per cent of the observed variance in grades. She found that the highly motivated, internal, low-dependent students had significantly higher grades.

The findings of Tella (2011) in their research on Students' Perspectives on the Secondary School English Curriculum indicated that students had positive perspectives towards the secondary school English curriculum and that there was no difference in perspectives towards secondary school English curriculum across genders. They recommended that appropriate measures be taken to help students further improve their perspectives towards secondary

school English curriculum as this will translate into improved academic achievement in the subject.

In gender-related issues on performance, Monica and Kelly (2006), in their research on Pregnancy-related School Dropout and Prior School Performance in South Africa, found out that prior school performance was strongly associated with a female student's likelihood of becoming pregnant while enrolled in school, and among pregnant schoolgirls, with the likelihood of dropping out of school at the time of pregnancy. Their results established that a young woman's access to childcare determined academic performance; female students who are more invested in their education are less likely to become pregnant while attending school. Academic achievement was correlated with students' sense of belonging to their school, commitment to school, and commitment to academic work, attending class, participating in discussions, completing homework assignments, avoiding distracting behaviour, and taking part in extracurricular activities. Young women's educational prospects following childbirth had a significant association with school performance. They suggested that measures to counter the disengagement of younger, preadolescent students should be put in place to improve female students' school performance. They pointed out that in order to help female students attain good academic performance, maintaining hope for future educational attainment and the rewards of school achievement can be enough to help poor women from communities with few economic opportunities avoid pregnancy until after they graduate.

Health factors play a role in determining a student's academic performance. This is shown by Schumacher (2005), who examined the relationship between body weight and grades. He isolated a causal effect of body weight by specifying an instrumental variable model in which indicators of self-assessed weight relative to the ideal serve as instruments for actual weight. Proxies for time preference and self-esteem were included to control for likely sources of deviations between the instruments and actual body weight. The findings revealed that estimates for students, both boys and girls, indicated that weight gain and being overweight

or obese each reduces grades by a significant amount that typically was statistically larger than the corresponding ordinary least square effect.

Spiritual factors have been identified as having an effect on academic performance. Katrina and Vicki (2009) conducted a study in the US on spirituality and academic performance among African American college students. Of particular interest was the relationship between these variables and academic performance. Correlation analyses suggested that spiritual beliefs and religious participation were positively related to academic performance. Physical appearance, as researched by French et al. (2009), had a positive and statistically significant impact on grades for female students and a positive although it was not statistically significant effect for male students.

Klomegah (2007) too, undertook a study utilising the goal-efficacy model to examine a) the extent to which index scores of student self-efficacy, self-set goals, assigned goals, and ability (four variables in the model) could predict academic performance of university students; and b) the best predictor of academic performance. The sample comprised 103 students in North Carolina who completed self-administered questionnaires voluntarily. Of the four variables in the goal-efficacy model, self-efficacy had the strongest predictive power. High school GPA is a better predictor of student academic performance than the goal-efficacy model. Caldas and Bankston (1997) noted that peer factors include a lack of friends and involvement with peers with negative attitudes.

Sparkes (1999) found out that truancy, even occasional, is associated with poorer academic performance at school. Having high levels of unexplained absence at school has also been found to be associated with poorer early adult outcomes in the labour market for instance higher probability of being unemployed and poorer adult health relative to non-truants.

## RESULTS AND DISCUSSION

The students' related factors were KCPE marks, study time-input, relationship with classmates, peer influence, after school goals, absenteeism from school

and class. Presented in Table 1 are results of students' | related factors that influence academic performance.

**Table 1: Student-Related Factors**

Student related factors		KCSE performance		Total N=100(100%)	P value
		Average N=46 (46%)	Low N=54(54%)		
Gender	Male	30(30%)	40(40%)	70(70%)	0.496
	Female	16(16%)	14(14%)	30(30%)	
KCPE marks	200-250	46(46%)	48(48%)	94(94%)	0.037
	251-300	0(0)	2(2%)	2(2%)	
	301-350	0(0)	2(2%)	2(2%)	
	351-400	0(0)	2(2%)	2(2%)	
Study input (hrs)per day	3-4 hrs	22(22%)	2(2%)	24(24%)	0.007
	5-6 hrs	16(16%)	16(16%)	32(32%)	
	7-8 hrs	8(8%)	36(36%)	44(44%)	
Relationship with classmates	Very poor	2(2%)	0(0)	2(2%)	0.552
	Poor	0(0)	0(0)	0(0)	
	Average	18(18%)	6(6%)	24(24%)	
	Good	20(20%)	30(30%)	50(50%)	
	Very good	6(6%)	18(18%)	24(24%)	
Relationship with other students	Very poor	2(2%)	0(0)	2(2%)	0.526
	Poor	6(6%)	0(0)	6(6%)	
	Average	18(18%)	12(12%)	30(30%)	
	Good	10(10)	34(34%)	44(44%)	
	Very good	10(10)	8(8%)	18(18%)	
Whether the respondent had fee problem	Yes	20(20%)	30(30%)	70(70%)	0.095
	No	26(26%)	24(24%)	30(30%)	
Whether the Peer influence affected respondent's performance	Yes	18(18%)	20(20%)	38(38%)	0.579
	No	28(28%)	34(34%)	62(62%)	
Whether the respondent had a role model	Yes	30(30%)	48(48%)	22(22%)	0.047
	No	16(16%)	6(6%)	78(78%)	
Whether had an after-school goal	Yes	14(14%)	6(6%)	20(20%)	0.098
	No	32(32%)	48(48%)	80(80%)	
Whether the respondent ever missed school	Yes	18(18%)	18(18%)	64(64%)	0.048
	No	28(28%)	36(36%)	36(36%)	
Whether the respondent ever missed class	Yes	26(26%)	16(16%)	62(62%)	0.055
	No	20(20%)	38(38%)	38(38%)	

It shows that study input (study hours) per day (p-value = 0.007) was statistically associated with academic performance. Todd (2006), in his research on the causal effect of studying on academic performance, found similar results. Relationships with

peers and other students were also found to be moderately significant at a 5 per cent significance level (p-value = 0.579 and 0.526, respectively). Availability of role models and absenteeism from school and class were statistically associated with academic

performance (p-value = 0.047, 0.048 and 0.055, respectively). This agrees with the results of Sabrina (2002), which revealed that students who had at least one race and gender-matched role model at the beginning of the study performed better academically than students without race and gender-matched role models. Too, after-school goal was found to have an influence on academic performance at 0 value=0.098.

The fee problem was also an influencing factor at p value=0.095. Principals of secondary schools in the study area also gave their views on the factors that influence academic performance. Eight principals out of nine participated in the research.

Table 2 presents the results of the factors that affect academic performance identified.

**Table 2: Factors that Affect Academic Performance**

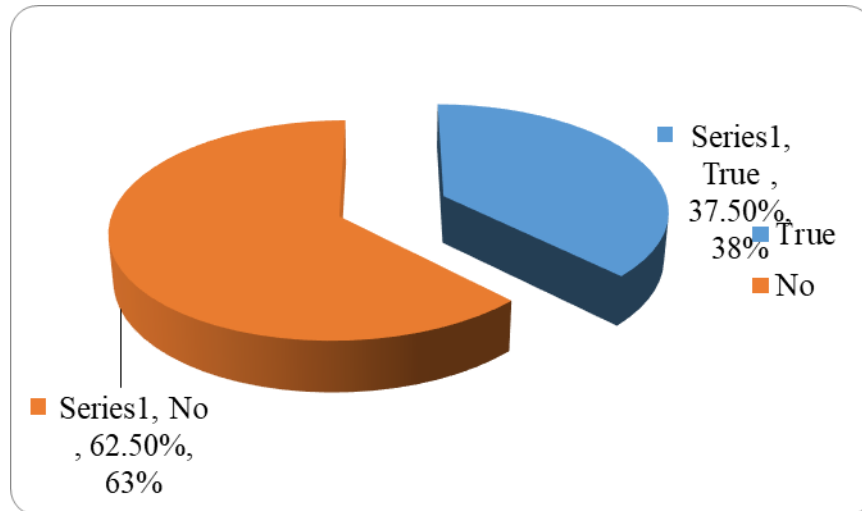
Factors that affect academic performance			Frequency	Percentage
Environmental related factors	Whether conflict in the study area affects students' performance	Yes	8	100%
		No	0	0
	Whether cultural practices affect students' performance	Yes	8	100%
		No	0	0
School related factors	Whether the school have adequate facilities	Yes	3	37.5%
		No	5	62.5%
	Whether the school have performance policy	Yes	8	100%
		No	0	0
	Whether teachers are involved in decision-making	Yes	6	75%
		No	2	25%
	Whether guardians are involved in decision-making	Yes	3	37.5%
		No	5	62.5%
	Whether the school does not have enough teachers.	Yes	3	37.5%
		No	5	62.5%
Family-related factors	Whether guardians have difficulties paying fees	Yes	8	100%
		No	0	0%
	Whether majority of guardians visit students	Yes	5	62.5%
		No	3	37.5%

Inter-tribal conflicts and cultural practices were identified by 100 per cent of the principals interviewed as factors that interfere with academic performance. 37.5 per cent of the schools had enough teachers, while 62.5 per cent did not. The results also show that 100 per cent of the schools had performance policies, 75 per cent had teachers involved in decision-making, and 25 per cent did not.

Students' guardians were involved in decision-making in 37.5 per cent of the schools, while 62.5 per cent were not, 37.5 per cent of the principals confirmed that their respective schools had enough teachers, while 62.5 per cent said their schools had teacher shortages. On the family-related factors, guardians did not pay fees in time, as identified by 100 per cent of the principals. 62.5 per cent of the principals pointed

out that the majority of the guardians visit their children, while 37.5 per cent argued that the guardians did not do so.

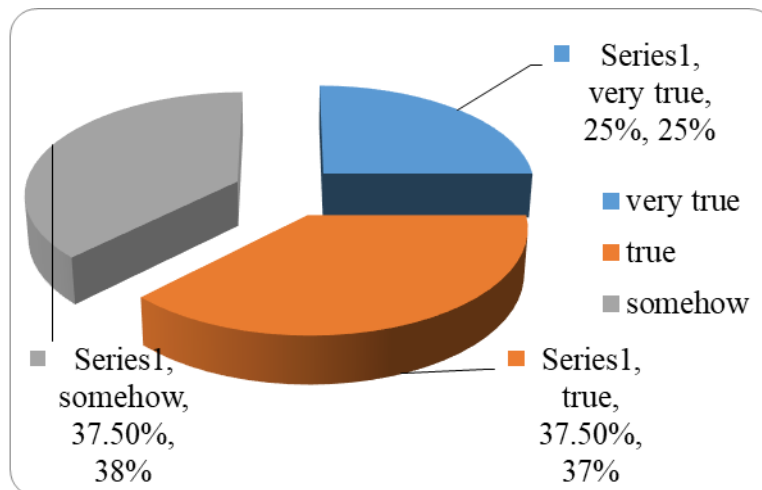
Student related factors were also examined by asking the principals their views on the factors. Response variables were put on a five point likert scale as ;very true, true, somehow, no and not at all. The results are presented in figures 1,2,3,4, and 5.



**Figure 1: Whether the Majority of Students have School Goals**

Figure 1 shows results of the question whether students in the study area have after school goals. It reveals that 62.5 per cent of the principals agreed that

majority of the students have after school goals while 37.5 per cent disagreed.

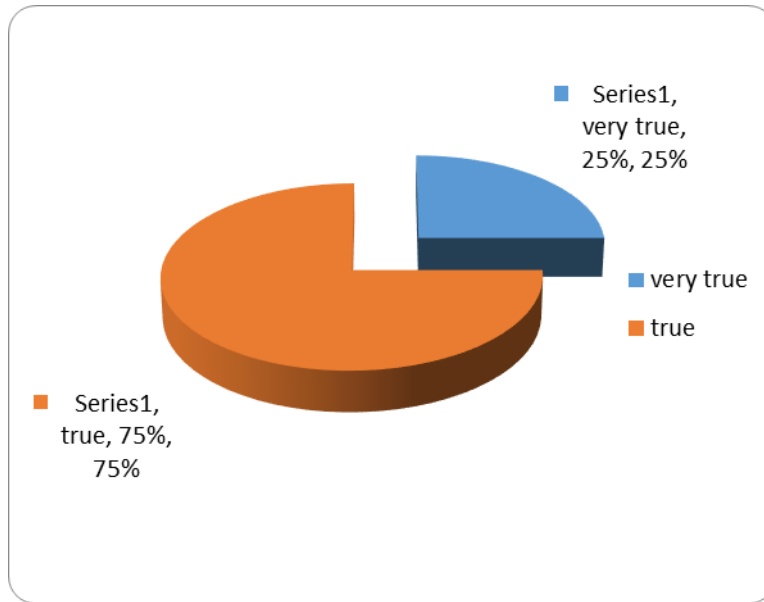


**Figure 2: Whether Majority of Students Missed Classes**

On whether the majority of students missed classes, 25 per cent of the principals concur that the statement was very true, 37.5 per cent had true as their answer,

while 37.5 per cent scaled the statement as somehow true.

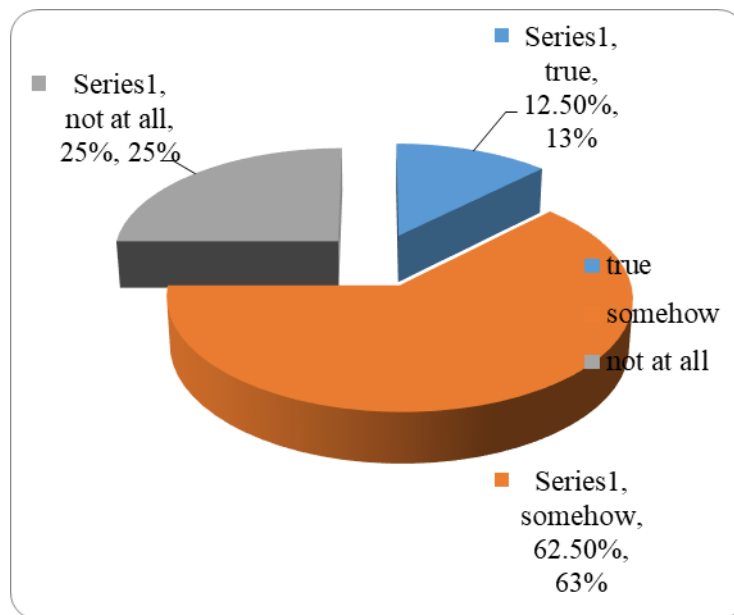
Figure 3 presents the results of the rating of peer influence on academic performance.



**Figure 3: Whether Peer Influence Affects Academic Performance**

A total of 25 per cent of the principals rated the statement as very true while 75 per cent rated it as true.

On the question whether poor relationships with others contribute to low performance and the results presented in Figure 5 (below).



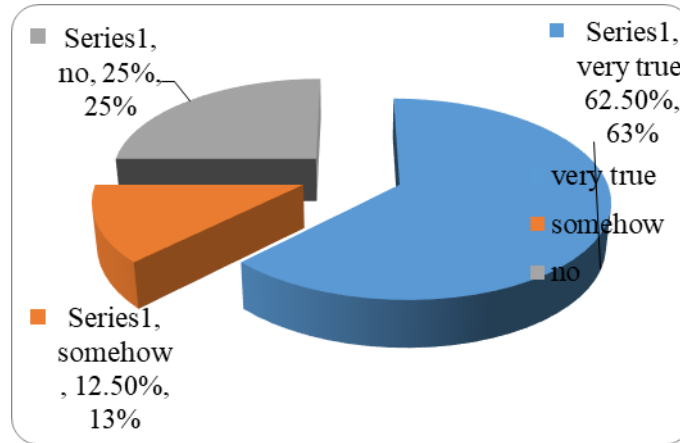
**Figure 4: Whether Poor Relationships with others Contribute to Low Performance**

A total of 62.5 per cent scaled the statement as somehow true while 12.5 per cent rated it as true. 25

per cent did not think that poor relationships with others contribute to low performance. Principals felt

more than students that peer influence affects students' academic performance.

Figure 5 presents the results of the question of whether a lack of role models contributes to low student performance.



**Figure 5: Whether Lack of Role Models Contribute to Low Student Performance**

A total of 62.5 per cent of the principals interviewed responded that the statement is very true with specific reference to the study area. 25 per cent did not agree with the statement, while 12.5 per cent rated it as somehow true. The students' responses were also indicative of the importance of role models in

influencing academic performance. Possible solutions needed to improve the performance of secondary school students in the study area were also analysed.

They are presented in Table 3.

**Table 3: Possible Solutions**

Possible solutions		Students		Principals	
		Frequency	Percentage	Frequency	Percentage
Good attitude towards academics	Yes	64	64%	8	100%
	No	36	36%	0	0
Improve the availability of learning resources	Yes	94	94%	8	75%
	No	6	6%	2	25%
Improvement of the school's physical facilities	Yes	66	66%	7	87.5%
	No	34	34%	1	12.5%
Improvement of security	Yes	55	55%	6	75%
	No	45	45%	2	25%
Payment of fees in time	Yes	86	86%	7	87.5%

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	No	14	14%	1	12.5%
Employment of enough and qualified teachers	Yes	54	54%	5	62.5%
	No	16	16%	3	37.5%
Motivation of students by parents and teachers	Yes	78	78%	6	75%
	No	22	22%	2	25%

A good attitude towards academics was the important student-related solution identified by 64 per cent of the former students and 100 per cent of the principals interviewed. Students stressed more improvement in teaching and learning resources such as libraries and laboratories (94%) and payment of fees on time (86%). They also suggested motivation by parents (78%) as another key factor. Though not a priority, students also suggested that a good attitude towards learning (64%), improving the security situation (55%), and improving physical infrastructure (66%) are important, as enough qualified teachers (54%). Marginal for students were school physical facilities.

Principals on the other hand rated positive attitude towards learning by students as foremost important factor (100%) followed by physical facilities and fees payment on time at 87.5 per cent each, then improvement of security, learning resources and motivation by parents as third important factors at 75 per cent.

Insecurity situation was a major factor for Principals than for students, enough qualified teachers were not because although they said it was an important factor but they had enough qualified teachers.

## CONCLUSIONS AND RECOMMENDATIONS

**Conclusion:** Study time input, absenteeism from school and class, availability of role models, and students after school goals were found to be majorly significant in influencing academic performance. The relationship with peers and other students was marginally significant.

**Recommendations:** Regarding student-related factors, finding ways to ensure students are fully in school and attending lessons as required with adequate teaching and learning resources is the paramount solution. Guidance and counselling for students to have good role models and after-school goals are important, too. Payment of their fees on time is a suggested factor, too. Schools can have bursary kitties or find ways of making pastoralists pay fees in kind using livestock or payment of fees during specific periods when livestock prices are high. Schools can also give students talks on entrepreneurship, which can inform them on how to guide their parents/families in selling or marketing livestock. Most parents just sell livestock at throw-away prices when their children are sent home for fees.

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