

Influence of Student Engagement on Students' Academic Performance in Public Secondary Schools in Marsabit County, Kenya

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Abstract

Student engagement has emerged as one of the most significant determinants of academic achievement because it influences learners' motivation, participation, persistence, and commitment to educational activities. Despite substantial investments by the Government of Kenya to improve secondary education through curriculum reforms, teacher recruitment, and increased access to schooling, academic performance in Marsabit County has remained consistently below the national average. The study investigated the relationship between learners' engagement and academic achievement in public secondary schools in Marsabit County, Kenya. It was guided by Connectivism Learning Theory and adopted a descriptive survey research design. The study population consisted of 2,665 participants, including school principals, teachers, and Form Four students. From this population, 353 participants were selected through a combination of purposive, stratified random, and simple random sampling procedures. Data were gathered through structured questionnaires and interview schedules. Quantitative information was processed using descriptive measures, Pearson's Product Moment Correlation, and simple regression techniques, whereas qualitative data were subjected to thematic analysis. The results demonstrated a statistically significant positive association between student engagement and academic performance ($r = .578$ ($p < .05$)). Regression analysis further demonstrated that student engagement significantly predicted academic performance after controlling for other dimensions of school culture ($\text{Beta} = .260$, $p < .05$). Students who actively participated in classroom learning, school activities, collaborative learning, and decision-making demonstrated higher academic achievement than less engaged learners. Interview findings revealed that learner participation was enhanced by supportive teachers, co-curricular activities, and positive classroom interactions but constrained by absenteeism, socio-economic challenges, and limited parental support. The study concludes that strengthening student engagement provides an effective strategy for improving academic performance. The study recommends that schools institutionalize learner-centered pedagogies, strengthen guidance and counselling programmes, increase student participation in school governance, and promote collaborative learning to enhance academic outcomes.

Keywords: *Student Engagement, Academic Performance, School Culture, Learner Participation, Public Secondary Schools, Marsabit County*

INTRODUCTION

Student engagement has emerged as a significant area of concern in contemporary educational research, as it reflects the degree to which students participate meaningfully in learning activities, interact with their learning environment, and demonstrate sustained interest and dedication to their academic development. Educational systems worldwide have increasingly moved away from conventional teacher-centred methods toward learner-centred approaches that promote active involvement, cooperation, critical thinking, and ongoing evaluation of learning. Such reforms acknowledge that students who participate actively in classroom learning and academic activities are generally more likely to attain better academic results than learners who remain passive recipients of teaching.

Student engagement encompasses behavioural, emotional, cognitive, affective, and intellectual dimensions that collectively determine learners' willingness to invest effort in educational activities. Behavioural engagement includes attendance, participation in classroom discussions, assignment completion, and involvement in co-curricular activities. Emotional engagement reflects learners' sense of belonging, motivation, and positive attitudes toward school. Cognitive engagement relates to learners' willingness to apply higher-order thinking skills, solve problems, and regulate their own learning, while affective engagement focuses on learners' emotional attachment to school and learning experiences (Barkley & Major, 2020; Wigfield, 2023).

Globally, student engagement has been identified as a major predictor of academic achievement. Evidence from OECD countries indicates that students who actively participate in classroom learning demonstrate higher achievement in literacy, mathematics, and science than disengaged learners (OECD, 2023). UNESCO (2024) similarly reports that learner engagement improves school attendance, motivation, retention, and completion rates, particularly among learners from disadvantaged backgrounds. These findings suggest that meaningful engagement creates learning environments that promote academic excellence while reducing school dropout rates.

Across Africa, governments have invested heavily in expanding access to secondary education through increased public financing, curriculum reforms, teacher recruitment, and infrastructure development. Despite these interventions, many countries continue to experience poor learning outcomes because learners remain insufficiently engaged in classroom activities. Studies conducted in Ghana, Ethiopia, Uganda, and South Africa indicate that learner participation, teacher support, classroom interaction, and collaborative learning significantly influence academic achievement (Torto, 2020; Hasanov, 2021).

Within Kenya, educational reforms such as Free Primary Education, subsidized secondary education, and implementation of the Competency-Based Curriculum have substantially increased access to education. Nevertheless, disparities in academic performance continue to exist across counties. The Kenya National Examinations Council (KNEC, 2023) reports considerable regional differences in KCSE performance, with arid and semi-arid counties consistently recording lower mean scores than urban counties. Previous studies suggest that school-level factors, including student engagement, teacher support, school leadership, and school culture, significantly influence learning outcomes beyond the availability of physical resources (Mwangi, 2021; Waweru, 2018).

Marsabit County continues to experience persistent educational challenges arising from geographical isolation, nomadic livelihoods, teacher shortages, insecurity, poverty, and limited educational infrastructure. These contextual factors frequently disrupt regular school attendance and reduce learners' opportunities to participate actively in classroom learning. Consequently, improving student engagement represents an important strategy for enhancing academic performance in the county.

Although previous studies have established positive relationships between student engagement and academic achievement, most were conducted in relatively well-resourced educational settings that differ considerably from the socio-economic realities of Marsabit County. Furthermore, many studies relied exclusively on quantitative research designs, thereby providing limited understanding of how different dimensions of engagement influence learning outcomes in marginalized educational contexts. This study therefore sought to examine the influence of student engagement on students' academic performance in public secondary schools in Marsabit County, Kenya.

Statement of the Problem

The Government of Kenya has implemented numerous interventions aimed at improving students' academic performance, including expansion of school infrastructure, subsidized secondary education, recruitment of teachers, curriculum reforms, and implementation of learner-centered instructional approaches. Ideally, these interventions should result in improved Kenya Certificate of Secondary Education (KCSE) performance and increased transition rates to institutions of higher learning.

Despite the implementation of these educational initiatives, academic achievement in public secondary schools within Marsabit County has continued to remain consistently below the expected national standard. County education reports indicate that only a small proportion of candidates attain the minimum university entry grade, while many schools consistently record mean grades below the national average. Poor attendance, learner disengagement, socio-economic challenges, nomadic lifestyles, and inadequate participation in school activities continue to undermine academic achievement.

Existing literature demonstrates that student engagement positively influences academic performance by enhancing learner motivation, participation, persistence, and commitment to learning. However, previous studies have largely been conducted in counties whose educational environments differ substantially from Marsabit County and have not comprehensively examined behavioural, emotional, cognitive, affective, and intellectual engagement within marginalized pastoral communities. Consequently, empirical evidence explaining how student engagement influences academic performance in public secondary schools in Marsabit County remains limited. This study sought to address this contextual and methodological gap.

Objective of the Study

To examine the influence of student engagement on students' academic performance among public secondary schools in Marsabit County, Kenya.

Theoretical Review

The study was anchored on Connectivism Learning Theory advanced by Siemens (2005), which argues that learning occurs through interaction, collaboration, participation, and continuous engagement within networks of people, information, and technology. The theory emphasizes that learners actively construct knowledge by participating in meaningful learning experiences rather than passively receiving information.

Within the school environment, student engagement reflects learners' willingness to participate actively in classroom discussions, collaborative learning, problem-solving activities, and co-curricular programmes. Highly engaged learners develop stronger motivation, self-regulation, critical thinking, and academic persistence, which subsequently enhance educational achievement.

The theory therefore provides an appropriate framework for explaining how behavioural, emotional, cognitive, intellectual, and affective engagement influence academic performance in public secondary schools. Students who actively engage in learning networks acquire deeper understanding, improved problem-solving skills, and stronger commitment toward educational goals, ultimately resulting in higher academic achievement.

Empirical Literature Review

Student engagement has attracted considerable scholarly attention because it determines the extent to which learners invest behavioural, emotional, cognitive, and intellectual effort in educational activities. Barkley and Major (2020) define student engagement as learners' active participation in classroom instruction, collaborative learning, and academic decision-making, while Wigfield (2023) argues that meaningful engagement increases learners' motivation and persistence, leading to improved educational outcomes.

International evidence consistently demonstrates positive relationships between student engagement and academic achievement. Lei (2018) established that behavioural, emotional, and cognitive involvement significantly influenced academic achievement among secondary students in the United States. Similarly, Yokoyama and Miwa (2020) found that active classroom participation was associated with better academic outcomes among Japanese learners. Kahu and Nelson (2018) further noted that engaged students demonstrate stronger persistence, resilience, and dedication to their learning goals.

African studies similarly support these findings. Torto (2020), studying secondary schools in Ghana, found that supportive teacher–student interactions significantly enhanced learner engagement and academic performance. Hasanov (2021) reported that behavioural, emotional, and cognitive engagement collectively improved educational achievement, although behavioural engagement exerted the strongest influence.

Kenyan studies equally demonstrate positive relationships between learner engagement and academic performance. Waweru (2018) found that learners who consistently engaged in classroom discussions and extracurricular activities attained better academic results than their less involved peers. Similarly, Mwangi (2021) reported that emotional and cognitive involvement improved KCSE outcomes by strengthening students' motivation, participation, and persistence in learning.

Despite these findings, conceptual, contextual, and methodological gaps remain evident. Most previous studies were undertaken in educational environments characterized by relatively adequate infrastructure, stable school attendance, and stronger institutional support than those found in Marsabit County. Furthermore, the majority relied primarily on quantitative research approaches, providing limited understanding of how engagement influences learning within geographically isolated and socio-economically marginalized contexts. The present study therefore contributes localized evidence regarding the influence of behavioural, emotional, cognitive, affective, and intellectual engagement.

RESEARCH METHODOLOGY

The study adopted a descriptive survey research design. The design was suitable as it allowed the researcher to obtain both quantitative and qualitative information from principals, teachers, and students on their views of student engagement and its influence on academic performance. The target population comprised 2,665 respondents, including 51 principals, 74 Form Four class teachers, and 2,540 Form Four students drawn from public secondary schools in Marsabit County. The study selected 353 respondents through purposive sampling of principals, stratified random sampling of teachers, and simple random sampling of students. Data were gathered using structured questionnaires and interview guides. Instrument validity was confirmed through expert assessment, while reliability was demonstrated through a pilot test that yielded satisfactory Cronbach's Alpha coefficients.

Quantitative data were processed using IBM SPSS Version 29. Frequencies, percentages, means, and standard deviations were used to describe perceptions of student engagement. Pearson's correlation tested the association between engagement and academic performance, while multiple regression assessed its predictive influence. Interview responses were analyzed thematically and combined with quantitative results during interpretation.

RESULTS AND DISCUSSION

Student Engagement and Students' Academic Performance

Student engagement was measured using behavioural, emotional, cognitive, intellectual, and affective dimensions of learner participation. Respondents rated their agreement with statements addressing students' involvement in classroom activities, collaborative learning, school programmes, decision-making processes, and commitment to academic responsibilities.

Overall, respondents agreed that student engagement positively contributed to academic performance. The overall mean score indicated that most schools had moderate to high levels of learner engagement. Students generally participated actively in classroom discussions, group learning activities, assignments, academic competitions, and co-curricular programmes. Similarly, respondents agreed that learners who demonstrated higher levels of participation were more motivated, attended school regularly, interacted positively with teachers, and achieved better examination results.

Interview findings supported the quantitative results. Principals observed that schools where students actively participated in classroom discussions, clubs, academic clinics, debates, and mentorship programmes consistently recorded better KCSE performance. Teachers similarly reported that engaged learners demonstrated higher attendance rates, completed assignments more consistently, asked questions during lessons, and showed greater willingness to participate in collaborative learning activities.

One principal explained:

"Students who actively participate in learning activities develop confidence, improve their understanding of concepts, and perform much better during examinations than learners who remain passive."

Another teacher observed:

"Most high-performing students participate actively during lessons, attend remedial classes, and willingly seek academic assistance whenever they encounter difficulties."

However, interview participants also identified several barriers limiting learner engagement. These included poverty, absenteeism resulting from nomadic lifestyles, early marriages, domestic responsibilities, inadequate parental support, long distances travelled to school, and

limited learning resources. Such challenges reduced regular attendance and weakened students' commitment to academic activities.

These findings suggest that improving student engagement requires schools to strengthen learner participation both inside and outside the classroom while simultaneously addressing contextual barriers affecting attendance and participation.

Correlation Analysis

Pearson Product Moment Correlation was used to assess the association between student engagement and academic performance. The results revealed a positive and statistically significant relationship between the two variables ($r = .578$, $p < .05$). This finding indicates that increased learner engagement is associated with improved academic achievement.

The correlation coefficient demonstrates a moderately strong positive relationship, suggesting that schools characterized by higher levels of learner participation generally recorded better academic performance than schools where students were less actively engaged.

The statistical significance suggests that the identified association was unlikely to result from random variation. Consequently, the null hypothesis stating that student engagement has no significant influence on students' academic performance was rejected.

The results imply that learners who actively participate in classroom discussions, group work, practical learning, academic competitions, co-curricular activities, and collaborative learning opportunities are more likely to achieve higher KCSE performance than learners demonstrating lower levels of engagement.

Regression Analysis

Multiple regression analysis was performed to determine the extent to which student engagement predicts students' academic performance after controlling for other dimensions of school culture.

The findings established that student engagement significantly predicted students' academic performance ($\beta = .260$, $p < .05$). The standardized beta coefficient indicates that student engagement makes a statistically significant positive contribution toward explaining variations in academic performance.

This finding suggests that a one-unit improvement in student engagement results in a corresponding positive improvement in students' academic performance, holding other school culture variables constant.

Although school leadership practices exhibited the highest predictive effect within the overall model, student engagement remained one of the strongest independent predictors of academic achievement. This demonstrates that learner participation constitutes a critical component of positive school culture capable of enhancing educational outcomes.

Discussion of Findings

The study established that student engagement significantly influences students' academic performance in public secondary schools in Marsabit County. The positive correlation coefficient ($r = .578$) indicates that greater student involvement in classroom instruction, collaborative learning, school programmes, and academic activities is associated with improved academic performance compared with limited learner participation.

These findings support Connectivism Learning Theory (Siemens, 2005), which argues that meaningful learning occurs when learners actively participate within knowledge networks through collaboration, interaction, and continuous engagement. Students who actively construct knowledge through participation develop stronger conceptual understanding, higher motivation, and improved academic competence.

The findings further agree with Barkley and Major (2020), who argue that active learner participation enhances academic persistence, motivation, and learning outcomes by increasing students' investment in educational activities. Similarly, Wigfield (2023) contends that student engagement promotes intrinsic motivation, enabling learners to sustain effort and overcome academic challenges.

The findings concur with Lei (2018), who found that behavioural, emotional, and cognitive engagement significantly influenced students' academic achievement. Similarly, Yokoyama and Miwa (2020) demonstrated that active participation in classroom learning was associated with better academic outcomes than limited student involvement. Within Africa, the findings corroborate Torto (2020), who found that supportive classroom environments significantly enhanced learner participation and academic achievement among secondary school students in Ghana. Similarly, Hasanov (2021) reported that behavioural engagement exerted the strongest influence on students' academic performance by encouraging consistent participation in learning activities.

The findings equally support previous Kenyan studies. Waweru (2018) reported that active involvement in classroom discussions and co-curricular activities was associated with significantly improved academic achievement. Likewise, Mwangi (2021) found that emotional and cognitive engagement enhanced KCSE performance by strengthening learners' motivation, persistence, and participation in classroom activities.

Conclusion

The study established that student engagement has a significant effect on academic performance among learners in public secondary schools in Marsabit County, Kenya. Both the descriptive and inferential findings demonstrate that schools characterized by higher levels of learner participation record comparatively better academic outcomes than schools where students remain less engaged. The positive and statistically significant association suggests that behavioural, emotional, cognitive, affective, and intellectual engagement collectively enhance students' learning outcomes.

The regression results further confirm that student engagement is a significant predictor of students' academic performance even after controlling for other dimensions of school culture. This finding implies that increasing opportunities for learner participation can produce meaningful improvements in KCSE performance among public secondary schools in Marsabit County.

The qualitative findings complement the quantitative evidence by demonstrating that effective student engagement extends beyond classroom participation to include collaborative learning, learner leadership, academic mentorship, co-curricular participation, guidance and counselling, peer support, and positive teacher–student relationships. Schools that intentionally cultivate these dimensions create learning environments that motivate students to attend school regularly, complete assignments, participate actively in lessons, and persist in academic tasks.

However, the study also established that learner engagement continues to be constrained by contextual challenges including poverty, nomadic lifestyles, absenteeism, insecurity, inadequate parental support, long travel distances to school, and limited educational resources. These factors reduce learners' opportunities to participate consistently in school activities and consequently undermine academic achievement.

The findings therefore support Connectivism Learning Theory, which emphasizes that meaningful learning occurs through interaction, collaboration, and active participation within

learning communities. Student engagement functions as an important mechanism through which learners acquire knowledge, develop higher-order thinking skills, and improve academic performance.

Overall, the study concludes that enhancing student engagement should be prioritized as a key strategy for improving academic achievement in public secondary schools, particularly in marginalized and geographically dispersed counties. Sustainable improvements in KCSE performance require schools to create learner-centred environments that encourage active participation while simultaneously addressing contextual barriers that limit students' involvement in educational activities.

Recommendations

The study recommends that schools strengthen learner-centred instructional approaches by promoting active participation through collaborative learning, classroom discussions, project-based learning, and co-curricular activities. Teachers should adopt interactive pedagogical strategies that foster critical thinking, problem-solving, and continuous learner engagement. The Ministry of Education should enhance teacher capacity-building programmes on learner-centred instruction, while school administrators should strengthen mentorship, guidance and counselling, and learner support systems. Schools should also increase opportunities for student participation in leadership and decision-making to foster ownership of the learning process. In addition, parents, communities, and government agencies should collaborate to address barriers such as absenteeism, inadequate infrastructure, and limited learning resources that hinder learner engagement. Finally, further studies should explore the influence of digital engagement, parental involvement, and learner well-being on academic performance in other marginalized contexts.

Practical Implications of the Study

The findings provide several practical implications for educational policy and practice. First, student engagement should be recognized as a strategic school improvement variable rather than merely a classroom management issue. Secondly, school leaders should develop policies that deliberately promote learner participation in academic and co-curricular programmes. Thirdly, teacher professional development should emphasize learner-centred pedagogies that actively involve students throughout the teaching-learning process. Finally, interventions targeting marginalized regions should integrate socio-economic support mechanisms alongside instructional improvements to enhance learner engagement and academic achievement.

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