

Instructional Leadership And Students ' Academic Performance: A Study On The Moderating Effect Of Organisational Culture

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Abstract

Instructional leadership has emerged as one of the major determinants of educational quality and student academic performance. As instructional leaders, principals have a responsibility to ensure that instructional practices are efficiently implemented. This study examined the relationship between instructional practices and student academic performance and whether this relationship is moderated by a school's organisational culture. The study adopted a mixed methods design and employed stratified sampling. Participants who were students, teachers and principals were sampled across three strata: sub-county, county and extra-county secondary schools in Kirinyaga and Nyeri counties, Kenya. The final sample applied in the study included 30 principals, 331 students and 305 teachers. Study results indicate that student performance was below average. The weak student academic performance was linked to existing instructional practices. Instructional practices were measured in the context of adherence to the school mission, curriculum management and the learning environment. Each of the aforementioned factors was found to have a positive and significant influence on student academic performance. Similarly, the influence of instructional leadership on student academic performance was moderated by the school's organisational culture. Findings show that instructional leadership practices are likely to have a more significant influence on student academic performance in schools with positive organisational culture. The study recommends that school principals should encourage the creation of a collaborative organisational culture that would ensure that different stakeholders of the school work together towards the improvement of student academic performance.

Keywords: School organisational culture, student academic performance, instructional leadership

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I. INTRODUCTION

Leadership in schools has become a major cause of concern among scholars due to its possible link to student academic performance. Previously, studies have focused on the individual and personality traits of the school principal and their effect on student academic performance. According to Akala (2021), the current era of school management requires principals to take up their roles not only as the heads of the institutions but also as instructional leaders. In the school setting, instructional leadership is focused on several areas, including curriculum management, staff development and providing the general direction of the institution. In Kenya, scholars such as Mutuku (2018) and Ndambuki (2020) found that instructional practices by school principals improved the quality of the teaching and learning process. While there are many players within the school system, the principal is often held accountable for the overall success or failure of the institution. The above is due to the instructional role of the principal in supervising teachers and monitoring student performance. This study sought to determine whether such instructional practices by school principals have a significant influence on student academic performance in national examinations.

II. CONTEXT

The challenge of poor academic performance among students in public secondary schools in Kenya has been identified by numerous scholars, including Muema (2021) and Mwangi (2016). Poor academic performance among learners has been linked to a wide range of factors, such as the lack of adequate teaching materials and the methods of instruction used. Poor student academic performance was evident in the study sites, namely Kirinyaga and Nyeri counties, Kenya, where students registered poor academic performance in national examinations. Some studies have examined students' academic performance in Kirinyaga and Nyeri counties, Kenya. For instance, Kangangi (2018) found that the performance of learners in Kirinyaga County, Kenya, was affected by inadequate physical and human resources, which resulted in a low student-teacher ratio and poor student academic

performance. Current studies on student academic performance in Kirinyaga and Nyeri counties, Kenya, have failed to link poor performance to principals' instructional practices. Similarly, there has been limited evidence on the moderating effect of school organisational performance in the relationship between instructional leadership and student academic performance.

III. LITERATURE REVIEW

Scholarship on the school's organisational culture and student academic performance has been on the rise. Whilst earlier scholars such as Schein (2011) focused on the role of school culture in creating an enabling environment for learners' success, Leithwood and Sun (2018) and Liu et al. (2021) have demonstrated that organisational culture impacts learners' performance in learning institutions. Organisational culture in this context has been defined as a unique living style that differentiates one learning institution from another (Leithwood and Sun, 2018). A strong school culture is developed through the actions of the school leaders, who come together to create shared values and beliefs. Culture is usually created over time as the school leaders, teachers, and students work together through various issues. Leithwood and Sun (2018) believe that how school principals deal with crises and accomplishments creates a culture practised in the institution. The strategies taken by school leadership in such instances shape the way the entire institution thinks and acts and eventually become the school's culture.

Michael et al. (2021) point out that instructional leadership includes the strategies used by school principals to ensure that teaching and learning are effectively implemented. Okindo et al. (2020) and Stosich (2020) further posit that through instructional leadership, school principals clearly define the school's goals and objectives and ensure the achievement of the set goals and objectives by constantly checking curriculum implementation. Instructional leadership also involves principals' acquiring teaching staff with the appropriate skills to impact students positively, ensuring that appropriate teaching and learning resources are available, and empowering staff through regular training.

Literature shows that the school mission is crucial as it motivates learning institutions to accomplish their goals (Koppel and Regner, 2015; Matsunaga, 2021). Further, Barasa (2017) posits that principals establish a positive relationship with teachers and learners through the school mission. Through a school's mission, a principal develops a psychological contract between the learning institution and its members, ensuring that a school follows the mission's main objectives (Barasa, 2017). Equally, Barasa (2017) argues that school principals must communicate and apply the school's mission statement effectively to achieve the school's intended goals. Furthermore, as Waweru et al. (2013) share, school principals must use strategies such as supportive placards and erected signage to improve the visibility of the mission. Such strategies ensure that all individuals in a learning institution constantly interact with the contents of the mission statement. Indeed, Barasa (2017) found that school mission statements are largely important in providing the general direction that an institution should take.

According to Tavares (2015), the school curriculum includes the syllabus and infrastructure, which the principals should effectively manage to enhance their performance and learners' outcomes. The study found that the curriculum structure is a significant component in learning institutions as it allows school principals and teachers to formulate a framework that guides how students study to achieve academic excellence (Bush and Glover, 2016; Graziose et al., 2017). Further, Bush and Glover (2016) emphasise that collaboration among all stakeholders in a school is crucial to ensure effective curriculum management.

In addition to the foregoing, the learning environment is also a significant determinant of students' academic performance (Kweon et al. 2017). This comprises the social and physical contexts in which students learn, the resources that aid learning, and the interactions between learners and between learners and school staff (Kweon et al., 2017; Malik and Rizvi, 2018; Suanti et al., 2021). Therefore, school principals are expected to build positive relationships between learners and staff to promote an effective learning environment. Apart from the social and physical contexts in which students learn, Kutsyuruba et al. (2015) note that principals must establish a suitable emotional environment to develop teachers' love for teaching and students' love for learning. Kutsyuruba et al. (2015) point out that a positive learning environment should be student-centred to prioritise learners' needs first.

As instructional leaders, it is the role of school principals to effectively communicate the school mission, supervise and manage the implementation of the school curriculum, and promote a positive teaching and learning environment (Dhuey and Smith, 2014; Francisco and Celon, 2020). Through instructional leadership, school principals create school cultures that impact learners' performance (Leithwood and Sun, 2018; Liu et al., 2021). Literature underscores that instructional leaders who make a good school organisational culture establish a positive relationship among learners, teachers, parents, and school management. The foregoing association is crucial for enhancing learners' success and academic achievements.

It is against this background that this study sought to establish the moderating effect of school organisational culture on the relationship between instructional leadership and student academic performance.

IV. METHODOLOGY

The study adopted a mixed methods design in examining the moderating effect of school organisational culture on the relationship between instructional leadership and student academic performance. The collection and analysis of quantitative and qualitative data were done concurrently. The use of mixed methods was effective in mitigating the limitations associated with the use of a single methodology (Creswell and Clark, 2011). Stratified random sampling was used in the study. Participants were selected across three main classifications of schools: sub-county, county and extra-county schools.¹. Yamane’s formula was used in the sample calculation. The study focused on a sample of 398 students, 374 teachers and 37 principals. However, the response rate included 30 principals, 331 students and 305 teachers who were involved in the final analysis.

The data collection process involved the use of close-ended questionnaires (quantitative) and interviews (qualitative). Questionnaires were offered to students and teachers in the sampled secondary schools in Kirinyaga and Nyeri counties, Kenya. Separate questionnaires for students and teachers were included, covering the dependent, independent and moderating variables. The items used in the variables were derived from previous research, which improved the reliability of the study (Mohamed et al., 2020). A reliability analysis of each variable was also conducted and found to be within the accepted range ($\alpha > 0.7$). Qualitative data was collected using interviews with the school principals. Given that the focus of the study was on the instructional practices of the school principals, conducting qualitative interviews with principals was found effective in acquiring detailed information related to the context under review.

Data analysis in the study was conducted in two steps. Quantitative data were analysed using descriptive statistics and multiple regression analysis. The second step involved the analysis of qualitative data. Qualitative datasets from interviews were examined using the NVivo software. Thematic analysis in the study involved code formulation and theme development.

V. DISCUSSION OF FINDINGS

This section presents a discussion of the key findings of the study.

Impact of Instructional Leadership on Student Academic Performance

Instructional leadership in the study was measured by examining the role of the school principal in the implementation of the school mission, curriculum management and the creation of a positive learning environment. Each of the three factors was found to have a positive and significant influence on student academic performance. Table 1 below shows the results of the regression analysis.

Table 1: Instructional Leadership and Student Academic Performance

Coefficients ^a						
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.584	.126		4.643	.000
	School Mission	.267	.104	.185	2.591	.014
	Curriculum Management	.369	.138	.277	2.901	.007
	Learning Climate	.447	.113	.496	3.956	.000

a. Dependent Variable: Student Performance

School Mission

School mission was found to have a positive and significant influence on student academic performance ($P < 0.05$). This means that schools that are able to efficiently apply their mission statements are likely to have a higher student academic performance. The findings support earlier works by Waweru et al. (2013), who associated school mission statements with values such as excellence, discipline and perseverance. Adherence to such values creates a culture of hard work, which is associated with improved students' academic performance. School principals, too, concurred with the foregoing as was stated by one of them:

“The mission statement is interlinked with every other aspect of the institution. The teaching process follows the school mission and values which take us back to the aspect of curriculum management. Most importantly, the statement has been providing guidance for making policies and procedures that are proactive in

¹ County schools – admit students within their home county and include both day and boarding schools

Extra-county schools – admit students within the host county and outside

Sub-county schools – normally day schools admitting students within the home county

the institution. In our institution, the mission statement has been affirmed through assessment procedures” (Interview, 28 April 2023).

The aforementioned quote resonates with Barasa (2017), who notes that for school principals, mission statements act as coordinating mechanisms and provide a clear sense of direction on the activities to be conducted within the institution. Students and teachers involved in the study were found to be aware of the school's mission statement. However, both categories of participants were uncertain about the possible links between the mission statement and academic performance. As a result, the study found that school principals have a responsibility to efficiently communicate the mission statements to students and teachers and ensure that the values espoused in the mission statement are applied in daily curricular activities.

Curriculum Management

The second factor examined the ability of school principals to efficiently apply the curriculum in meeting learning objectives. Study results indicate that curriculum management has a positive and significant influence on student academic performance ($p < 0.05$). Curriculum management in the study was examined by determining the role of school principals in evaluating teaching methods and ensuring that different teaching methods have been efficiently applied. One school principal also stated:

"My main role is to ensure that staff members have everything they require to facilitate the process of curriculum implementation. To implement curriculum efficiently, I ensure that every staff [member] understands how to use it responsively and intentionally. In addition, I ensure that the programs in the curriculum can easily develop a system of training and professional development thus supporting [teaching] staff in their efforts. However, in smaller schools such as ours, the principal has to do extensive resource mobilisation due to the surrounding conditions that the school finds itself in" (Interview, 27 April 2023).

The study found that school principals have a responsibility to mobilise appropriate resources for use in the curriculum implementation process. Findings are consistent with Kweon et al. (2017), who observed that curriculum implementation is likely to be more effective in institutions with adequate human material resources. For instance, Mwangi (2016) found that one of the challenges facing public secondary schools in Kenya is a low teacher-student ratio. In this case, increasing the number of teachers involved in teaching would be critical in improving the management of the curriculum. Besides mobilising resources, the study finds that school principals also have a role in evaluating the instructional methods used by teachers and determining their relevance in curriculum implementation. In their study, Mwangi (2016) argued that effective management of the curriculum requires principals to be able to offer timely and effective responses on curriculum management to teachers and students.

Learning Environment

The school learning environment was found to have a positive and significant influence on student academic performance ($p < 0.001$). The learning environment in the study is related to the general surroundings of the institution as well as the nature of the resources present in the school. The concept of the learning environment in this study went beyond the physical aspects to include how students and teachers interact within the pedagogical settings. The study finds that principals have a responsibility to create a conducive learning environment for students and teachers. School principals included in this study reported using a wide range of methods to create a positive learning environment, including positive reinforcement. For instance, a principal reported:

"The school promotes a positive learning environment by rewarding success. As the school head, I recognise that my students have different needs, targets and levels of ability. Rewarding students is an indication that students' efforts are being rewarded. In this institution, awards have been taken as a powerful mindset that encourages the students to feel better about their performance. I therefore believe in rewarding all those who seem to make some improvement rather than only the top performers" (Interview, 2 May 2023).

Study findings on the learning environment resonate with earlier findings by Malik and Rizvi (2018), who associated student academic achievement with various components of the learning environment, including collaboration and supportive learning. According to Malik and Rizvi (2018), collaborative and positive learning environments are developed by actually creating a positive learning environment.

Moderating Effect of Organizational Culture

In this study, culture was examined through the nature of collaborations between different stakeholders in the school environment. In this case, the institutional culture included different aspects such as excellence and hard work. As a result, 75% of the interviewed principals were of the view that they had created the appropriate organisational culture in their schools. For example, one of them stated:

"We have created a culture of excellence especially in time management. Every student in the institution is aware of the vision and the specific actions they must take to achieve the vision. It is almost automatic. All

students know where they are supposed to be at every point in time. We hope that the culture would be transmitted to other aspects of learning” (Interview, 2 May 2023).

However, the majority of the students (77.4%) and 70.5% of teachers did not think that the school principals were able to create positive school organisational cultures due to competing priorities, which saw the principals away from the school environs attending to other management-related duties.

In the study, school organisational culture was found to have a significant moderating effect on the association between instructional leadership and student academic performance. Table 2 below shows the results of the moderation analysis.

Table 2: Moderation Analysis

Coefficients ^a		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	.601	.128		4.703	.000
	Instructional Practices	.674	.055	.711	12.218	.000
2	(Constant)	1.288	.212		6.078	.000
	Instructional Practices	.365	.162	.568	2.397	.002
	INTER1	.115	.029	.679	3.962	.000

a. Dependent Variable: Student Performance

This study result is consistent with that of Leithwood and Sun (2018), who found that the success of instructional practices adopted in an institution is dependent on the culture within. Further, they observed that the actions of school heads are critical in the creation of values and norms that guide the organisation. This suggests that the school principal has a responsibility to create a culture in which school members observe the school mission, adhere to the demands of the curriculum and create a positive learning environment. Such elements of culture are likely to result in improved student academic performance in the context of study.

VI. RECOMMENDATIONS

The following recommendations are made based on the foregoing study findings:

Given that study findings show that the organisational culture significantly moderates student performance, it is recommended that school principals should be engaged in creating a collaborative organisational culture in their schools. This would ensure that the different school stakeholders work together towards improving student academic performance (Mutuku, 2018). This is particularly important in this context where student performance is usually attributed to the teachers only in a school.

In addition, the study recommends that school principals should have access to ongoing professional development to enable them to provide effective instructional leadership. The proposed leadership courses should be focused on curriculum management. This is critical because, as Taylor and Richards (2018) argue, school principals cannot rely wholly on knowledge initially gained in colleges/universities during their undergraduate studies in offering instructional leadership. Besides their own development, principals should also promote the professional development of teachers. Training teachers and improving their knowledge of curriculum implementation would be critical in improving the performance of students in public secondary schools.

VII. CONCLUSION

The current study has found that school organisational culture has a significant moderating effect on student academic performance. School organisational culture in this study was found to influence instructional practices through the creation of an effective learning environment. Equally, the school's organisational culture assists in the creation of norms and value systems that encourage effective implementation of instructional practices. The role of school principals in instructional leadership in the study was examined in the context of their ability to implement the mission statement, enhance curriculum management and promote the creation of a positive learning environment. The instructional practices were found to have a positive and significant influence on student academic performance. The above implies that school principals in public secondary schools in Kenya and similar contexts should create cultures that support learning while ensuring that they are able to efficiently manage the implementation of the school curriculum.

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