

## INSTRUCTIONAL SUPERVISION AS A DETERMINANT OF STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN KENYA.

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**Abstract:** Education is critical for the progress and changes of nations across the world. The purpose of the study was to the influence of instructional supervision on students' academic performance in public secondary schools in Kenya. The article is an extract from a study done in public secondary schools in the Yatta sub-county, Machakos County, Kenya. The study was guided by the instructional leadership model. The researcher adopted a descriptive research design, survey method. The study was conducted among 247 respondents comprising 19 principals and 228 teachers. The study employed stratified sampling techniques and simple random sampling techniques. Data collection was done using questionnaires for principals and teachers. Data were analysed using Statistical Package for Social Sciences (SPSS). The findings, from the principal's perspective, revealed that there exists a weak positive correlation between the principal's instructional supervision and students' academic performance ( $r = 0.236$   $p = 0.330$ ). However, from the teacher's perspective, the findings show that there is a weak negative correlation between the principal's instructional supervision and students' academic performance ( $r = -0.190$ ,  $p = 0.009$ ). Therefore, the study concluded that instructional supervision is crucial, but it must be carried out properly and with the participation of all parties concerned for the best result. It was, thus, suggested that the principals in public secondary schools should enhance instructional supervision by always being actively involved in the day-to-day learning of the institutions and engaging the teacher in planning for the supervision to enhance students' performance.

**Keywords:** Instructional Supervision; Determinants; student's academic performance; Public Secondary school; Yatta Sub-county; Kenya

### INTRODUCTION

Globally, education plays a crucial role in a country's ability to develop and adapt (Galigao & Liema, 2019). Education not only imparts useful knowledge and abilities but also instils important values and encourages the development of positive attitudes and perspectives. Prioritizing education on a global scale led to the creation of Sustainable Development Goal 4 (SDG 4), which calls for universal access to an inclusive and equitable quality education that promotes lifelong learning opportunities for all (United Nations General assembly, 2015). This goal was premised on the need to guarantee that all children, regardless of their socio-economic status, have equal access to high-quality education that will result in meaningful and successful learning and improved academic achievement (Boeren, 2019). There is a variety of factors that affect a student's achievement in education. Students' academic performance in Yatta Sub-county, Machakos County, Kenya was analysed to determine the impact of four different administrative methods common among principals namely: capacity building, utilization of learning resources, instructional supervision, and goal setting. However, this article focuses on instructional supervision and its influence on student's academic performance in public Secondary in Kenya

Instructional supervision is a critical role played by principals in a school. The responsibility has been entrusted to principals to fulfill their educational goals (Mavindu, 2013). Instructional supervision requires that the principal

focus on the teaching staff who are directly involved in implementing the school curriculum through instructions. Therefore, principals are expected to plan and execute instructional supervision in their schools. Instructional supervision entails practices such as checking students' academic records; classroom visitation, principals' involvement in classroom teaching, and checking teachers' professional documents (Samoei, 2014). Studies have been conducted across the world on the influence of instructional supervision on students' academic performance. An empirical study on primary instructional supervision techniques was undertaken by Jeffrey et al., (2016) in the United States, and its results showed a strong connection between supervision and students' achievement in schools. Several studies on multiple African countries have also been undertaken. Academic success was linked to the principals' duties in supervision, according to research by Ankoma-Sey and Maina (2016) in Ghana. Principals' instructional supervision and teachers' efficacy in Nigeria: a similar study was conducted by Iroegbu and Etudor-Eyo in 2016. The authors used a retrospective methodology. 201 educators and 14 school administrators participated in the research. According to the findings, principals can make a big difference in their teachers' performance through various forms of instructional supervision, such as post-analysis conferences, analysis/strategy meetings, and classroom observations. This indicated that teachers benefited from the principal's instructional oversight. Studies by Iroegbu and Etudor-Eyo (2016); Muriithi (2012); and Abas (2014) indicated that instructional supervision has a positive influence on the process of learning. Therefore, the focus of these studies was on the influence of instructional supervision and teacher performance. However, the focus of this study was on the influence of instructional supervision and student's academic performance in Public Secondary in Kenya

## STATEMENT OF THE PROBLEM

The mandate of the school principal as per the basic Education Act 2013 is to be the accounting officer and lead educator. The principal is responsible for the operational management of the schools. The principals are also responsible for the establishment and implementation of education plans, programs, policies, and curriculum activities of the school (GoK, 2013). Therefore, once students are admitted, the principal must plan for all activities that will ensure quality teaching. The ultimate goal is to ensure that learners achieve quality education, perform well in KCSE, and attain all attributes that help them cope with life after school. The government has established various policies to ensure that every citizen has access to education and performs in their academics. For Instance, the government, through the Teacher's service commission (TSC) introduced performance contracting which is meant to improve the quality of teaching and learning in public schools by building a performance-oriented culture and ensuring there is accountability in public schools (Jonjo & Jonjo, 2017).

The TSC has also established a Teacher Professional Development (TPD) program. The TPD is meant to continuously improve and develop teachers' competencies, skills, and knowledge to facilitate the provision of quality education against the ever-changing learners' needs. All of these are meant to enhance students' performance in Kenya.

However, data from Yatta sub-county education office (2021) showed that students' academic performance remained below average in most public secondary schools. Most schools had posted a declining performance trend in their KCSE results over the years, while others had registered low mean grades. An analysis of the academic performance of the 58 secondary schools in the Sub-County between 2016 and 2020 showed that the performance in KCSE had remained below the national mean.

Most of the schools had registered low mean scores for the six years as compared to the national mean score, an indication that public schools in this sub-county had been performing dismally. This was even after the government had provided resources to the schools, including subsidized public secondary schools tuition fees, expansion of physical infrastructure, and employment of trained teachers. There was therefore the need to carry out this study to provide solutions to the administrative practices affecting students' academic performance in public secondary schools in Yatta sub-county, Machakos County, Kenya.

## STUDY OBJECTIVES

To examine the influence of instructional supervision on students' academic performance in public secondary schools in Yatta sub-county, Machakos County, Kenya

## STUDY THEORY

The study was guided by the instructional leadership model. The proponent of the instructional leadership models is Carrier Back in 2014. The model demonstrates an empirical illustration that deliberates on the way the leader and staff crossing points lead to institutional outcomes. In his model, carrier (2014) makes a disparity between the role of the school principals as instructional leaders and the role of teachers. Carriers' (2014) model holds that the principal is supposed to focus on the value of learning for all students by developing a school community with a common vision by encouraging significant expectations for learning and teaching practices. The principals need to concentrate their efforts on attaining the desired goals in learning and teaching practices as well as be in a position to issue clear instructions so that the school can have the best outcomes. Therefore, the teachers need to be able to match the principal's functions in the classrooms for great outcomes to be achieved. Carrier (2014) emphasizes the principals' characteristics. As an instructional leader, he or she should be enthusiastic to play his or her role, be modest, and always ready to assume an important role whose purpose is to enhance leaders' achievement. Besides, the principals need to show strong expert resolve to solve to achieve the role of an instructional leader. The ultimate performance of the students is, however, modelled by the teacher's output.

School principals are perceived to be at the centre of curriculum implementation by choosing the appropriate instructional methods that promote effective learning. As such, the model requires that the principles should reflect all learning aspects of the students. He or she must focus on learning, communicate high expectations for student achievement and instruction; utilise data to inform the school's work, and establish a unified community around one vision and mission more so concerning students' academic performance. Thus, the model summarises the principals' role in ensuring there is clear knowledge of instructional best parties such as responsive instructional leadership pedagogy via communicating high expectations for student's performance so that the learner could realise their full potential in their learning outcomes (Carrier, 2014).

The instructional leadership model has some strength. First, it has been created based on different literature studies about instructional leadership and observation of its application in schools. Second, the model implemented study findings on leadership sharing and the ability of teachers to create schools that highlight the academic field and focus on students' academic performance. In addition, it provides a linear relationship between the variables which is easy to interpret. However, the model's weakness is the lack of empirical tests, and there are no questionnaire tools created for the model (Alig-Mielcarek, 2014). Carrier's (2014) instructional leadership model is relevant to the current study. This is because it helps to conceptualize the principal's administrative practices including principals' instructional supervision.

## LITERATURE REVIEW

### Instructional Supervision and Students' Academic Performance

Principals are expected to take on a leadership role in curriculum and instruction as part of their supervisory responsibilities. Adul, Akinloye & Olabisi, (2014) define "instructional leadership" as "leadership behaviours intended to improve classroom instruction". Teaching techniques, curriculum implementation, professional competency, and effective classroom instruction are all examples of the kinds of actions that fall under this category (Alkedem, 2013). As a result, principals play a crucial role in raising teachers' productivity and efficacy. Several researchers have looked into the correlation between teacher oversight and student achievement.

The relationship between supervision and students' academic achievement was found to be statistically significant in an empirical study of principal instructional supervision techniques in the United States of America (USA) conducted by Jeffrey, Vivian, and Susan (2016). The researchers in this study used a descriptive research strategy based on interviews and questionnaires to gather data from 357 classroom teachers and 119 school administrators. The latest study, which was undertaken in Kenya, was different from the last one, which was done in American classrooms.

According to research conducted in Ghana, the supervisory duties of department heads were significantly correlated with students' academic achievement. This was discovered by Ankoma-Sey and Maina (2016), who studied the effect of effective supervision on student success. Nine hundred and sixty-three administrators and principals took part in the research. Researchers conducted interviews and distributed questionnaires to acquire

primary data. Unlike the current study, which focused on classroom teachers and principals, this previous study was performed in Ghana and primarily concerned department heads and head teachers.

In Nigeria, Iroegbu and Etudor-Eyo (2016) looked at how the principal's instructional supervision affected teacher performance. Teachers in public schools in Nigeria's Akwa Ibom State were evaluated depending on how closely they were supervised by their principals to determine whether or not this factored into their success. This study was conducted using an ex post facto methodology by the authors. From a total of 1,105 educators, including classroom instructors and school administrators, 201 participated in the study. Principals were interviewed about their role in instructional oversight, and teachers were asked about their performance using a questionnaire designed to measure the impact of their lessons. The data was analysed using a t-test and mean statistics. The study's findings showed that teachers' efficacy varied significantly across four factors: analysis/strategy, classroom observation, post-analysis conference, and post-conference. The results suggested that principals' instructional supervision has a major impact on teacher performance. These four facets of instructional supervision were examined in this study because of their potential impact on teachers' performance. The current study concerned itself more about the connection between principals' involvement in instructional monitoring and student achievement. In addition, that study was undertaken in Nigeria, but the current one was carried out in Kenya.

Principals' instructional supervision practices were analysed by Ndambuki, Kasivu, and Mwanza (2020) to determine their impact on students' KCSE performance in Makueni County, Kenya. Some 345 educators and their principals (n=108) participated in the survey. Principals' instructional supervision strategies were found to have a favourable impact on students' KCSE performance in public secondary schools in Makueni County. In contrast to the previous research, which was performed in secondary schools in Makueni County, the current study was conducted in Yatta Sub-County, Machakos County.

It was investigated by Ngui (2018) in public schools in Mwala Sub-County, Kenya, "how principals' instructional supervision procedures affect students' KCSE performance." In this study, researchers employed a descriptive survey method. Seven secondary schools in the Mwala sub-county participated, and the survey included a total of 86 educators, including 7 principals. Teachers' responses to surveys were utilized to compile data, while principals' responses were interviewed using structured interview guides. The results showed that instructional monitoring by principals had a major impact on student's performance on the KCSEs. In contrast to the current study, which employed both descriptive and inferential statistics, the researcher in the previous study solely used descriptive statistics to examine the data.

## RESEARCH METHODOLOGY

This study adopted a descriptive research design, survey method. This described the variables of the study and the relationships that occur naturally between and among them (Sousa *et al.*, 2007). The research design was appropriate since the study sought to investigate the influence of principals' instructional supervision and students' academic performance. The target population of the study was 838 people comprising 58 principals and 750 teachers from 58 public secondary schools in the Yatta sub-county. Stratified sampling technique and Simple random sampling were used to sample 19 principals plus 228 teachers making 247 respondents. The data for this study was collected using questionnaires for principals and teachers. Data was analysed using SPSS version 23 and presented in Tables, Figures, and narratives.

## FINDINGS

### DESCRIPTIVE STATISTICS

The study sought to determine the influence of the principal's instructional supervision on students' academic performance in public secondary schools in the Yatta sub-county, Machakos County, Kenya. This was assessed from the perspective of principals and teachers. The descriptive statistics are shown in Table 1 and Table 2 respectively.

Table 1: Descriptive statistics for principals’ instructional supervision and student’s academic performance as reported by principals

| Statements  |                |       |          |                   | Mean        | Standard Deviation |
|---|----------------|-------|----------|-------------------|-------------|--------------------|
|   | Strongly agree | Agree | Disagree | Strongly Disagree |             |                    |
| As the school principal, I establish a positive relationship with the teachers I supervise and allow them to share about their classroom practices.   | 68.4           | 31.6  | 5.3      | 0                 | 3.47        | 0.96               |
| As the school principal, I am familiar with the instructional strategies the teacher plans to use during the lesson.  | 63.2           | 31.6  | 5.3      | 0                 | 3.58        | 0.61               |
| As the school principal, I am involved in planning how the teacher plans to address the different learning abilities amongst the students and the classroom management system the teacher will use. | 52.6           | 36.8  | 10.5     | 0                 | 3.42        | 0.69               |
| As the school principal, I often visit classes when teaching is in progress for supervision to observe teaching and learning.   | 57.9           | 26.3  | 10.5     | 0                 | 3.37        | 0.90               |
| As the school principal, It’s my role to evaluate the teaching methods applied by teachers, to improve results.   | 78.9           | 15.8  | 5.3      | 0                 | 3.74        | 0.56               |
| As the school principal, I work with teachers to improve their results and advise them on how they should improve their teaching.   | 89.5           | 10.5  | 0        | 0                 | 3.90        | 0.32               |
| As the school principal, I suggests new approaches and teaching methods after supervision.  | 84.2           | 15.5  | 0        | 0                 | 3.84        | 0.38               |
| <b>Aggregate</b>  |                |       |          |                   | <b>3.62</b> | <b>0.63</b>        |

Source: (Survey data, 2022)

As shown in Table a, the aggregate mean of responses was 3.62 while the aggregate standard deviation was 0.63. The high aggregate mean of 3.62 shows that most responses are skewed towards strongly agree (4) on the Likert scale. On the other hand, an aggregate standard deviation of 0.63 showed a moderate variation in responses. In particular, most of the principals were in agreement that as the school principal, they establish a positive relationship with the teachers they supervise and allow them to share about their classroom practices as demonstrated by 68.4% who strongly agreed and 31.6% who agreed. However, 5.3% disagreed.

The majority of the principals were in agreement that as the school principal, they are familiar with the instructional strategies the teacher plans to use during the lesson as demonstrated by 63.2% who strongly agreed and 31.6% who agreed. However, 5.3 % disagreed. Further, 52.6% of the principals strongly agreed and 36.8% agreed that as the school principal, they are involved in planning how the teacher plans to address the different learning abilities amongst the students and the classroom management system the teacher will use. However, 10.5 % disagreed.

Most of the principals were in agreement that as school principals, they often visit classes when teaching is in progress for supervision to observe teaching and learning as demonstrated by 57.9% who strongly agreed and 26.3% who agreed. However, 10.5% of the principals disagreed that they often visit classes when teaching is in progress for supervision to observe teaching and learning. The majority of the principals were in agreement that as the school principal, it’s their role to evaluate the teaching methods applied by teachers, to improve results as shown by 78.9% who strongly agree and 15.8% who agreed. However, 5.3% disagreed.

Further, all the principals were in agreement that as the school principal, they work with teachers to improve their results and advise them on how they should improve their teaching as demonstrated by 89.5 % who strongly agreed and 10.5% who agreed. Similarly, all principals were in agreement that as the school principal, they suggest new approaches and teaching methods after supervision as demonstrated by 84.2% who strongly agreed and 15.5% who agreed.

**Table 2: Descriptive statistics for principals’ instructional supervision and student’s academic performance as reported by the principal**

| Statements   | Strongly agree | Agree | Disagree | Strongly Disagree | Mean        | Standard Deviation |
|--|----------------|-------|----------|-------------------|-------------|--------------------|
| The school principal establishes a positive relationship with the teachers they supervise and allows us to share about our classroom practices.  | 0              | 34.7  | 62.1     | 3.2               | 2.32        | 0.53               |
| The school principal is familiar with the instructional strategies the teacher plans to use during the lesson.   | 0.5            | 37.4  | 60.5     | 1.6               | 2.37        | 0.53               |
| The school principal is involved in planning how the teachers plan to address the different learning abilities amongst the students and the classroom management system the teacher will use | 0              | 38.4  | 59.5     | 2.1               | 2.36        | 0.52               |
| The school principal often visits classes when teaching is in progress for supervision to observe teaching and learning.   | 2.1            | 55.3  | 37.9     | 4.7               | 2.55        | 0.62               |
| The school principal has a role to evaluate the teaching methods applied by teachers, to improve results.  | 0              | 38.4  | 58.4     | 3.2               | 2.35        | 0.54               |
| The school principal works with teachers to improve their results and advise them on how they should improve their teaching.   | 1.6            | 30    | 64.2     | 4.2               | 2.29        | 0.57               |
| The school principal suggests new approaches and teaching methods after supervision.   | 3.7            | 34.7  | 51.6     | 10                | 2.32        | 0.70               |
| <b>Aggregate</b>   |                |       |          |                   | <b>2.37</b> | <b>0.57</b>        |

Source: (Survey data, 2022)

As shown in Table 2, the aggregate mean of the responses was 2.37 and the aggregate standard deviation was 0.57. The low aggregate mean of 2.37 shows that most of the responses are skewed towards disagree (2). On the other hand, the high aggregate standard deviation of 0.57 shows a high variation in responses.

The majority of the teachers were in disagreement that the school principal establishes a positive relationship with the teachers they supervise and allows us to share about our classroom practices as demonstrated by 62.1% who disagreed and 3.2% who strongly disagreed. However, 34.7% of the teachers agreed and 0.5% strongly agreed that the school principal establishes a positive relationship with the teachers they supervise and allows us to share about our classroom practices.

Most of the teachers were in disagreement that the school principals are familiar with the instructional strategies the teacher plans to use during the lesson as shown by 60.5% who disagreed and 1.6% who strongly disagreed. However, 37.4% agreed and 0.5% strongly agreed that the school principals are familiar with the instructional strategies the teacher plans to use during the lesson.

Further, the majority of 59.5% disagreed while 2.1% strongly disagreed that the school principals are involved in planning how the teachers plan to address the different learning abilities amongst the students and the classroom

management system the teacher will use. On the other hand, 38.4% agreed that the school principals are involved in planning how the teachers plan to address the different learning abilities amongst the students and the classroom management system the teacher will use.

The majority of the teachers were in agreement that the school principal often visits classes when teaching is in progress for supervision to observe teaching and learning as demonstrated by 55.3% who agreed and 2.1% who strongly agreed. On the other hand, 37.9% of the teachers disagreed while the rest 4.7% strongly disagreed that the school principal often visits classes when teaching is in progress for supervision to observe teaching and learning.

The majority of the teachers were in agreement that the school principal has a role to evaluate the teaching methods applied by teachers, to improve results as shown by 58.4 % who disagreed and 3.2% who strongly disagreed. On the other hand, 38.4% agreed that the school principal has a role to evaluate the teaching methods applied by teachers, to improve results.

Further, the majority of 64.2% disagreed and 4.2% strongly disagreed that the school principal works with teachers to improve their results and advise them on how they should improve their teaching. However, 30% agreed and 1.6% strongly agreed that the school principal works with teachers to improve their results and advise them on how they should improve their teaching. Finally, most of the teachers were in disagreement that the school principal suggests new approaches and teaching methods after supervision as demonstrated by 51.6% who disagreed and 10% who strongly disagreed. However, 34.7% agreed and 3.7% strongly agreed that the school principal suggests new approaches and teaching methods after supervision.

### INFERENCE STATISTICS

#### Correlation Analysis

The assessment of the relationship between the dependent and independent variables was done through a Pearson’s correlation analysis. The statistics of the dependent variables and independent variables were computed into a single variable per factor. A Pearson correlation analysis was computed at a 95% level of confidence. The coefficient of Pearson correlation is between 0 and 1, whereby a positive coefficient denotes a positive or direct relationship. On the other hand, a negative coefficient implies an indirect or negative relationship. A correlation coefficient that is below 0.29 is weak, between 0.30 and 0.49 is moderate and between 0.5 and 0.69 is strong while 0.7 and above is very strong (Creswell, 2014). The correlation matrix concerning the principal’s questionnaire and teachers’ questionnaires are presented in Table 3 and Table 4 respectively.

**Table 3: Correlation analysis Matrix from the principal’s perspective**

|                                  |                     | Academic Performance | Instructional Supervision |
|----------------------------------|---------------------|----------------------|---------------------------|
| <b>Academic performance</b>      | Pearson Correlation | 1                    | .236                      |
|                                  | Sig. (2-tailed)     |                      | .330                      |
|                                  | N                   | 19                   | 19                        |
| <b>Instructional Supervision</b> | Pearson Correlation | .236                 | 1                         |
|                                  | Sig. (2-tailed)     | .330                 |                           |
|                                  | N                   | 19                   | 19                        |

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: (Survey data, 2022)

As shown in the correlation matrix above, the results show a weak positive correlation between the principal’s instructional supervision and students’ academic performance ( $r = 0.236$   $p = 0.330$ ). The correlation is statistically insignificant since the P value (0.330) is more than the level of significance (0.05).

Table 4: Correlation analysis Matrix from the Teacher's perspective

|                                  |                     | Academic Performance | Instructional Supervision |
|----------------------------------|---------------------|----------------------|---------------------------|
| <b>Academic performance</b>      | Pearson Correlation | 1                    | -.190**                   |
|                                  | Sig. (2-tailed)     |                      | .001                      |
|                                  | N                   | -190                 | 190                       |
| <b>Instructional Supervision</b> | Pearson Correlation | -.190**              | 1                         |
|                                  | Sig. (2-tailed)     | .001                 |                           |
|                                  | N                   | 190                  | 190                       |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: (Survey data, 2022)

As depicted in the correlation matrix above, the findings show that there is a weak negative correlation between the principal's instructional supervision and students' academic performance ( $r = -0.190$ ,  $p = 0.009$ ). The correlation is statistically significant since the p-value (0.009) is less than the significant level (0.05). From the analysis, the results from the principal's perspective and the teacher's perspective differ. From the principal's perspective, there is a positive correlation between instructional supervision. These findings agree with previous studies by Jeffrey, Vivian, and Susan (2016), Ankoma-Sey and Maina (2016), Iroegbu and Etudor-Eyo (2016), Ngu (2018), and Ndambuki, Kasivu, and Mwanza (2020) who all found a positive correlation between instructional supervision and student's academic performance. However, from the teacher's perspective, the correlation is significantly negative. This means that the presence of instructional supervision does not necessarily imply there is improvement in academic performance. However, its absence may cause a significant decline in students' academic performance.

## CONCLUSION AND RECOMMENDATIONS

The study aimed to determine if there is a correlation between instructional supervision and student achievement in public secondary schools in the Yatta sub-county of Machakos County, Kenya. Principals may be monitoring their students' progress by reviewing grades, visiting classrooms, and even teaching themselves, but this is not enough. An increase in the principal's role in supervising lessons was found to have a negligible impact on student's grades. Students' academic performance, however, drops dramatically when the principal's eye is taken off the classroom. Therefore, the study concluded that instructional supervision is crucial, but that it must be carried out properly and with the participation of all parties concerned for the best result. It was, thus, suggested that the principals in public secondary schools should enhance instructional supervision by always being actively involved in the day-to-day learning of the institutions and engaging the teacher in planning for the supervision. This will ensure that the right thing is being done at the right time which in turn will help to enhance students' performance.

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