

**PRINCIPALS' INSTRUCTIONAL SUPERVISION STRATEGIES ON STUDENTS'  
ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN GATANGA  
SUB-COUNTY, MURANGA COUNTY, KENYA**

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## DECLARATION

I declare that this research thesis is my original work achieved as a result of my reading, reflection, and personal research. It has not been submitted to any other university for a degree.

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## **DEDICATION**

I dedicate this work to my beloved parents, Margrate Wesonga and my late father, Joseph Adhiambo Suku. To my husband, Stephen Omondi Onyango, and children, Brandon Otieno Omondi, Joy Achieng, Charles Ochola, and Angel Gladys Anyango, for their patience. They were my source of inspiration during the writing process.

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## ABSTRACT

This study examined the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya. The study was guided by the following objectives: to determine the extent to which principals' classroom observation influences students' academic achievement; to examine the influence of principals' provision of instructional materials to teachers on students' academic achievement; and to find out the influence of principal-teacher collaborative planning on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya. The study was guided by Total Quality Management Theory (TQM), developed in the 1920s by Deming. This study employed a convergent parallel mixed-methods research design. The target population was 48 public secondary schools, 48 principals, 380 teachers, and one Sub-County Director of Education. Criterion purposive sampling was used to include the sub county director of education and 10 out of 48 principals. The study used stratified and simple random sampling to select 260 out of 380 teachers to participate in the study. Questionnaires were used to collect quantitative data from teachers, and interview guides were used to collect qualitative data from sub county directors of education and principals. Cronbach's alpha was used to test the reliability of Likert scale tools, and the coefficient of 0.83 was realized. Descriptive statistics with the help of SPSS version 25 was used to analyze quantitative data, which was presented in frequencies, percentages, graphs, and tables. Qualitative data was analyzed using a thematic approach and presented in the form of narratives and direct quotations. The study revealed that principals' instructional supervision strategies such as classroom observation, provision of instructional materials, and principal-teacher collaborative planning influence students' academic achievement in public secondary schools. Feedback from principals' classroom observations was found not to be effective in improving teachers' lesson presentations and management. Principals do not effectively observe teachers' mastery of content, syllabus coverage, and lesson notes to enhance student performance. Instructional materials provided, such as worksheets, charts, and graphs, are often outdated, which negatively impacts student performance. The study recommended that principals should provide more detailed, actionable feedback targeting specific areas for improvement in teaching methods, lesson presentations, and class management. The government should implement policies mandating comprehensive training programs for principals, focusing on effective classroom observation and feedback techniques. These programs should emphasize developing skills for providing constructive feedback and assessing teachers' mastery of content. The government should also ensure adequate funding for the regular updating and acquisition of relevant instructional resources and create a framework for principals to assess and address the specific material needs of their schools to enhance student achievement.

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## **ABBREVIATIONS AND ACRONYMS**

|              |                                          |
|--------------|------------------------------------------|
| <b>AI</b>    | Artificial Intelligence                  |
| <b>HoD</b>   | Head of Department                       |
| <b>KCSE</b>  | Kenya Certificate of Secondary Education |
| <b>OER</b>   | Open Educational Resources               |
| <b>PSLE</b>  | Primary School Leaving Examination       |
| <b>SPC</b>   | Statistical Process Control              |
| <b>TESSA</b> | Teacher Education in Sub-Saharan Africa  |
| <b>TESSA</b> | Teacher Education in Sub-Saharan Africa  |
| <b>TQC</b>   | Total Quality Control                    |
| <b>TQM</b>   | Total Quality Management Theory          |



## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Instructional supervision is one of the indispensable functions for the effective operation of a good school system. It is an aspect of school administration that primarily focuses on ensuring the achievement of the expectations of the education system, including the effective performance of learners (Peretomode, 2021). Instructional supervision is defined by Kumari (2022) as activities designed to improve instruction at all levels of the school enterprise (Kumari, 2022). Balimuttajjo (2023) described instructional supervision as an ongoing, periodic, formative practice conducted with the intention of enhancing teachers' instructional methods and student performance.

According to the definitions provided, principals' instructional supervision entails the school principal observing and evaluating teachers' instructional methods to improve the quality of teaching and learning. This process encompasses classroom observations, providing support materials, and collaborating with teachers to enhance their instructional techniques, ultimately leading to more effective learning and improved learner performance.

In a study conducted by Glanz (2018), it was argued that contemporary supervisory strategies drew inspiration from an earlier American educational system in which teachers were subject to the oversight of local governments. According to Glanz's research, this historical supervision was the shared responsibility of the church, school administration, trustees, local elected officials, and citizen groups.

The goal of supervision, according to Okumber (1998), was to achieve curriculum requirements and was referred to as inspection. Over time, as Peretomode (2021) noted, the field of education has undergone numerous reforms, leading to different strategies of teacher supervision such as classroom observation, teacher visitation, and demonstration. Ngui (2018) mentioned that in colonial England, supervision of instruction was done by local citizens who were appointed to inspect what the teachers were doing. This role of supervision, as noted by the author, was later delegated to school principals. In today's educational landscape, instructional supervision focuses on enhancing classroom instruction for the mutual benefit of teachers and students, leading to improved academic performance (Mette & Range, 2017).

Instructional supervision has garnered significant attention from scholars worldwide. For instance, Range (2013) conducted a study with the objective of exploring teachers' perceptions of supervision and evaluation by principals in eight high-performing elementary schools in West Virginia, United States. The study findings indicated that teachers placed trust in the feedback and regular observations conducted by their principals, leading to a sense of shared instructional leadership. Consequently, this trust and collaboration improved both teacher performance and student outcomes. In a related study conducted by Annunziata in 1997 in Papua New Guinea, it was established that instructional supervision has a positive impact on teaching and learning. However, Annunziata (1997) only focused on the supervision that takes place in the classroom, a gap that the current study sought to fill.

In another study conducted in the USA on instructional supervision in the administration of secondary education, Archibong (2012) argued that a principal serves as an instructional leader, responsible for enhancing the quality of teachers' instruction to facilitate the successful attainment of educational objectives. From the cited author, it can be said that the principals play

a crucial role in supervising classroom instruction, closely observing teachers, and critically assessing teaching and learning processes. They collaborate with teachers to establish educational goals, engage in discussions, and develop plans for students' success. Principals also actively provide guidance and oversee the implementation of instructional resources, contributing to the continuous improvement of the educational process and school development. This point is supported by Ekpoh and Eze (2015), who contend that the principals also provide and monitor the implementation of instructional resources.

A study conducted by Huang and Xiaohong in 2014 in China demonstrated that instructional supervision in educational institutions plays a crucial role in enhancing both teacher professional development and students' academic achievements. The researchers found that instructional supervision is typically performed by designated administrators, including principals and vice principals. These individuals are responsible for conducting regular classroom observations and offering feedback to teachers, which, in turn, enhances the quality of instruction and the performance of students.

Nasreen and Shah (2019) discovered that in Pakistan, instructional supervision comprises monitoring students' progress, supplying instructional materials, and conducting informal classroom visits. These activities are consistently carried out by secondary school principals and are believed to be beneficial for enhancing the performance of both teachers and students. This study, however, was conducted in Pakistan, a country whose educational policies and background are different from those of Kenya, particularly in Gatanga Sub-County and Muranga County, hence the need for the current study to fill the gap.

In Namibia, McKinne (2018) established that principals are responsible for overseeing the provision and supervision of instructional materials as well as teaching. However, the

majority of schools lack adequate instructional materials, leading to a negative impact on learning. McKinne (2018) further argued that access to high-quality and up-to-date instructional materials is essential for effective teaching and learning processes. Consequently, there is a pressing need for the government to address the issue of limited instructional materials in schools.

A study conducted by Garba and Abdullahi (2022) in public secondary schools in Bauchi State, Nigeria, revealed that continuous supervision of teachers' professional documents, such as schemes of work and lesson plans, enhances teachers' performance, subsequently benefiting the learners' academic outcomes. This research highlights the significance of instructional supervision in school leadership, as it directly influences academic performance. When head teachers actively engage in instructional supervision, they ensure that teaching practices adhere to established standards and best practices, ultimately fostering higher instructional quality and improved student academic performance.

In Egypt, Elassy (2022) discovered that to enhance teachers' classroom management and improve learners' performance, supervision plays a crucial role. The author suggested that conducting regular classroom supervision and offering resources and support are some of the strategies that can be implemented to improve the academic performance of learners. The study by Elassy (2022), however, made no mention of how the principals were involved in the implementation of the strategies meant to improve learners' performance, hence the need for the current study to fill in the gaps.

The urge to improve the quality of education in the 21st century has made it imperative for countries, including Tanzania, to continually pursue educational reforms. Decentralizing education is one of the major reforms in Tanzania, and it places school leadership in the spotlight

as responsible for enhancing education quality by empowering teachers through school-based instructional supervision practices.

In a study conducted by Awino in 2022, the aim was to explore teachers' perspectives on school-based instructional supervision practices for enhancing teaching skills among pre-primary teachers. The study revealed that head teachers' instructional supervision practices were ineffective, as they lacked appropriate supervision skills for pre-primary classes. In contrast, pre-primary teachers expressed a desire for supervisors to conduct both pre- and post-instructional supervision discussions. Additionally, there were no formal arrangements for teachers to acquire new teaching strategies. The study suggests that instructional supervision should be carried out collaboratively on a regular basis. This can be achieved through mentoring, coaching, teamwork, and clinical supervision, ultimately leading to improved academic performance among students.

Mulunda and Musaazi (2016) conducted a study to investigate the impact of instructional supervision by school authorities on the teaching practices of teachers in public secondary schools in Uganda. Their research revealed that a significant number of secondary school teachers in Uganda do not adequately prepare schemes of work and lesson plans, nor do they sufficiently engage in practical lessons or allocate time for remedial classes for academically struggling students. These pedagogical practices have been identified as contributing to the underperformance of numerous students in national examinations, reflecting ineffective supervisory strategies implemented by school authorities. This study conducted by Mulunda and Musaazi (2016) served as the foundation for the current study, which aimed to examine how the supervisory strategies employed by school principals impact the academic performance of students in public secondary schools.

A study conducted in Rwanda by Ntezimana and Imaniriho in 2023 investigated the impact of teaching aids on biology subject performance among O-level secondary school students in Kayonza District. The findings indicated that students who utilized teaching aids outperformed those who didn't have access to such resources. The study identified several factors contributing to improved performance in O-level biology secondary schools in Kayonza District, including the provision of instructional materials in schools, teacher workshops on instructional material usage, the creation of simple teaching aids for student practice, and effective supervision of instructional material utilization. Importantly, the study underscores the importance of combining instructional materials with effective teaching methods and supervisory strategies to achieve the highest academic performance.

In Kenya, the supervision of instruction by school administrators is regarded as a crucial managerial duty that affects both the quality of instruction and students' exam results. As a result, the Ministry of Education makes efforts to ensure efficient instructional monitoring in schools (Gitonga, 2019). Kiviyo and Nduku (2022) mentioned that the interactions that a school principal has with the teachers and students through the checking of teachers' professional records, classroom observation, and induction of new teachers have been found to affect the teaching and learning process. The authors contended that the principals, whose one of the major roles is to supervise teachers, especially in the areas of their weaknesses, do not take their supervisory duties seriously and spend most of their time attending to visitors and development projects at the expense of conducting instructional supervision, which has affected academic performance in schools. According to Ndirangu (2015), ineffective supervision of both teachers' professional records and students' learning documents results in haphazard implementation of

the curriculum and unprofessional behavior among teachers, such as absenteeism, leading to low student performance.

While schools work hard to improve the performance of students, the performance of schools in Gatanga Sub-County, Murang'a County continues to experience a decline in performance in KCSE. Gathumbi (2017) did a study about teacher empowerment strategies and students' academic performance in Kenya's certificate of secondary education (KCSE) in public secondary schools in Gatanga sub-county, Kenya. The study associated the decline in the academic performance of students with ineffective school leadership. Different from this study by Gathumbi, which related principal-teacher empowerment strategies with students' academic performance, the current study looked at principal-teacher supervisory strategies in relation to students' academic performance. Specifically, the study investigated how supervisory strategies of the principals, including classroom observation, provision of instructional material, and principal-teacher collaborative planning, influence students' academic performance in terms of KCSE mean scores in Gatanga Sub-County, Muranga County.

## **1.2 Statement of the Problem**

School principals play a crucial role in ensuring that students receive quality education and that the educational system adapts to the evolving demands of society through the effective implementation of instructional supervision strategies. A strong recognition of the impact of effective leadership in schools has led the government to invest in the professional development of school leaders to enhance student achievement and supervision. This initiative, as emphasized by Githiari (2017) and Ndung'u (2021), aims to equip principals with the necessary skills to improve academic performance.

Despite well-intentioned efforts by the government, the students' performance in public secondary schools, particularly in Gatanga sub-county, in the Certificate of Secondary Education (KCSE), has consistently been poor (Gathumbi, 2015). This situation has raised concerns among parents and the community, especially in schools where performance has persistently declined. The concern has been that continued higher failure rates could contribute to an increase in student dropout rates. This is a critical issue, as failing to meet educational standards can limit students' opportunities for higher education or future employment. Consequently, this could perpetuate a cycle of poverty and hinder socio-economic development in the county and the country at large.

Amid the challenge of declining student performance, there has been limited literature that explains how the supervisory strategies employed by the principals in public secondary schools influence the academic performance of students. Therefore, there is a pressing need for a study of this kind that investigated the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

### **1.3. Purpose of the study**

The main purpose of the study was to find out the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

#### **1.3.1 Objectives of the Study**

This study was guided by the following specific objectives:

- I. To determine the extent to which principals' classroom observation strategy influences students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.
- II. To find out the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.
- III. To find out the influence of the principal-teacher collaborative planning strategy on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

#### **1.4 Research Questions**

This study was guided by the following research questions:

- I. To what extent does principals' classroom observation influence students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya?
- II. How does principals' provision of instructional materials to teachers influence students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya?
- III. How does principal-teacher collaborative planning influence students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya?

#### **1.5 Significance of the Study**

The findings of this study may provide information to the Ministry of Education about the need for effective instructional supervision strategies in public schools. It may enable policymakers to enrich the current policies and devise ways of improving students' academic

outcomes through improving principals' supervisory strategies. School principals may benefit from the findings of the current study by improving supervisory strategies. Improved teacher management and instructional supervisory strategies as a result of this study's findings may be beneficial to the teachers in some ways, for instance, in their professional growth. Instructional supervision provides teachers with opportunities for professional growth and development. Through regular classroom observations, feedback, and coaching, teachers receive guidance on how to improve their instructional practices. This support helps teachers enhance their teaching skills, expand their range of instructional strategies, and stay updated with the latest educational research and best practices. Instructional supervision also allows principals to identify the specific needs and challenges of individual teachers.

By providing personalized feedback and support, principals can address teachers' concerns, offer solutions to instructional problems, and help them overcome any barriers to effective teaching. This targeted support helps teachers grow professionally and build their confidence in the classroom. The study's findings may also benefit students in public secondary schools in Gatanga Sub-County. By implementing effective supervisory strategies, principals can enhance instructional supervision, provide targeted support to teachers, and ultimately improve students' academic achievement, which may consequently benefit parents and the community through the quality education of their children.

As the county has been lagging behind in KCSE performance compared to other regions, this study may most probably provide principals with effective supervisory strategies to be adopted by secondary school principals in order to improve students' performance in the sub-county as a whole. The generated information may add to the body of knowledge and be beneficial to future scholars. The researcher may benefit from this study by acquiring knowledge

regarding effective supervisory strategies that can be employed by the principals to improve students' academic achievement.

### **1.6 Scope and Delimitations of the Study**

This study was conducted in public secondary schools in Gatanga Sub-County, Kenya. The study focused on the principal's supervisory strategies, particularly classroom observation, the provision of instructional materials, and principal-teacher collaborative planning. These were studied in relation to how they influence the performance of learners. The study was limited to the school principals and teachers. The principals were considered because they are in charge of secondary schools, and their supervisory strategies were investigated in relation to how they influence the academic performance of learners.

The teachers were included because they are involved in instruction. They are responsible for delivering instruction and sharing knowledge with students. They have expertise in their respective subjects and can effectively convey complex concepts in a simplified manner. Through their teaching, teachers help students gain a deep understanding of academic content. As a result, students are able to achieve maximum performance in academics. The study was limited to the use of questionnaires and interview guides in the collection of data.

### **1.7 Theoretical Framework**

In a research study, the theoretical framework serves as the foundational structure that can accommodate and underpin a theory (Kivunja, 2018). This section of the study looked into the Total Quality Management theory, its practical application, and the assessment of its strengths and weaknesses.

### **1.7.1 Total Quality Management Theory**

Total Quality Management Theory (TQM) was developed in the 1920s by Deming. The theory is based on seven principles, which include: improved customer satisfaction and loyalty; enhanced product and service quality; increased efficiency and productivity; reduced waste and costs; better decision-making; employee empowerment and satisfaction; and competitive advantage in the market.

This theory underscores the importance of ongoing improvement and recognizes that change is a result of mutual influence. It argues that when employers and employees collaborate, it enhances organizational performance. In a school setting, it is crucial for principals and teachers to cooperate to maximize students' academic success. As the school leader, the principal should oversee classroom observations, provide necessary teaching resources, and maintain a conducive environment, ultimately leading to improved student performance.

According to the theory, leadership plays a pivotal role in ensuring the success of quality management by setting a clear vision for continuous improvement in the organization. In the context of a school, the principal should establish precise standards for what constitutes high-quality teaching performance. These standards are achieved through methods such as classroom observation and by providing teachers with the necessary support and resources for their teaching practice. Offering clear performance standards is essential for promoting consistent and effective teaching practices. Classroom observations are a valuable tool for evaluating teachers' performance and offering constructive feedback. The theory, as emphasized by Deming (1920), advocates for employee participation and collaboration to achieve organizational goals, which, in an educational setting, translates to the academic achievement of students.

The theory of total quality management has been shaped by the contributions of several researchers. Shewhart (1920) is considered the father of statistical quality control. Shewhart introduced statistical process control (SPC) techniques to monitor and control the quality of industrial processes. His work laid the foundation for the concept of using statistical data to understand and improve quality. Deming (1940) is often credited as the person who took Shewhart's ideas and developed them further. He emphasized the importance of a systematic approach to quality management, focusing on reducing variation and improving processes. Deming introduced his famous 14 Points for Management, which emphasized the role of leadership, employee collaboration and involvement, and continuous improvement in achieving quality (students' performance). Juran (1950) contributed significantly to the field of quality management by introducing the concept of the "Quality Trilogy." He emphasized that quality improvement involves three key processes: quality planning, quality control, and quality improvement. Juran also introduced the concept of "fitness for use," which emphasized meeting customer needs and expectations. Feigenbaum (1950) introduced the concept of Total Quality Control (TQC). He emphasized that quality should be a comprehensive effort involving all members of an organization, from top management (principals) to frontline employees (teachers). Hence, in a school, the cooperation of teachers and their principals becomes important for the achievement of the academic goals of the learners.

Following the cited authors, it is clear that over the years, numerous researchers and practitioners have further refined and implemented TQM principles. TQM has become a widely recognized and adopted approach to quality management, promoting a culture of continuous improvement, customer focus, and employee involvement in organizations worldwide.

Total Quality Management (TQM) was first utilized in Japan in 1940, with its initial focus on improving the quality of products. Over time, this approach evolved to encompass all aspects of organizational excellence, including the quality of learning outcomes among students in schools (Blanckstein, 2019). In the United States of America, TQM found application in the Navy, where it was employed to supervise the work of quality consultants (Farooq & Akhtar, 2007). More recently, Omolo (2016) observed a growing interest among institutions in Kenya, such as schools, in adopting TQM principles. They see it as a valuable tool for enhancing the quality of services, particularly in terms of improving learner performance.

### **1.7.2 Strengths of Total Quality Management Theory**

The TQM theory is based on the belief that quality is the responsibility of everyone in the organization and that it should be integrated into all aspects of its operations. The theory places a strong emphasis on understanding and meeting customer needs and expectations. By adopting a customer-centric approach, organizations such as schools can enhance customer satisfaction and loyalty, leading to long-term success. Further, TQM promotes a culture of continuous improvement by encouraging employees to identify and address quality-related issues. Taking the example of schools, through the use of techniques such as instructional supervision, they can strive for success.

TQM theory recognizes that employees are valuable assets and encourages their active involvement in quality improvement initiatives. Engaging employees in decision-making processes, empowering them to take ownership of their work, and fostering a collaborative environment can lead to increased motivation, productivity, and creativity, which, in a school, can enhance learners' performance.

Supplier Collaboration: TQM encourages collaboration between an organization and its suppliers. This collaboration involves sharing information, best practices, and innovations, which can lead to mutual benefits and improved processes. TQM theory contends that by working closely with suppliers and establishing mutually beneficial partnerships, organizations such as schools with the principal as the head can ensure the quality of incoming materials such as teaching material, reduce costs, and enhance overall supply chain performance, which consequently improves the quality of teaching and learners performance. TQM theory requires strong leadership commitment and support at all levels of the organization. When leaders demonstrate a genuine dedication to quality and actively participate in TQM initiatives, it sets a positive example for employees (teachers) and helps create a culture that values excellence and continuous improvement, which, in a school, can be realized in terms of students' academic achievement.

### **1.7.3 Weaknesses of Total Quality Management Theory**

While TQM has several strengths and has been widely implemented in various organizations, it also has certain weaknesses. For example, it is time- and resource-intensive. Implementing TQM requires a significant investment of time, effort, and resources. It involves training employees, establishing quality systems, and conducting regular audits and supervision, small organizations or those with limited resources may find it challenging to allocate the necessary resources for a successful TQM implementation. While TQM emphasizes the involvement of all employees in quality improvement efforts, achieving genuine employee engagement can be challenging. Employees (teachers) may view TQM initiatives as additional work or perceive them as management-driven without real empowerment. A lack of genuine employee involvement can undermine the effectiveness of TQM implementation.

#### **1.7.4 Application of Total Quality Management Theory**

Total Quality Management (TQM) is a theory that emphasizes continuous improvement, customer satisfaction, and employee involvement. While it was originally developed for the manufacturing industry, the principles of TQM can be effectively applied to various sectors, including the field of education or school systems. In this context, TQM can be implemented in several ways. For instance, the principle of customer focus can be adapted to a school setting, where students and their parents can be considered customers. Implementing TQM in education means understanding and meeting the needs and expectations of these 'customers.' Schools can achieve this by conducting surveys, gathering feedback, and engaging in regular communication to identify areas for improvement. This approach aims to enhance the overall educational experience, including the academic performance of students.

TQM places a strong emphasis on the role of leadership in driving quality improvement. For school principals, demonstrating an unwavering commitment to quality education is paramount. To achieve this, they should establish a clear vision, set measurable goals, and provide the necessary resources and support to foster a culture of continuous improvement. This commitment should be reflected in students' academic performance. A committed principal actively supports and promotes effective teaching practices. This involves regular classroom observations, providing constructive feedback to teachers, and offering opportunities for professional development to enhance instructional strategies. These efforts, in turn, contribute to the improvement of student academic achievement.

TQM promotes a systematic approach to continuous improvement. In schools, under the leadership of principals, quality teams or committees can be established with teachers to identify areas for improvement, set improvement targets, and develop action plans. These teams can

engage in regular classroom supervision and provide feedback to teachers, which, in turn, can be used to promote progress among the teachers. School principals should prioritize continuous improvement because it allows the school to regularly assess and refine teaching methods, curriculum, and learning materials. By encouraging teachers to reflect on their practices and make necessary adjustments, principals can foster an environment that supports students' academic achievement.

Total Quality Management (TQM) places significant emphasis on the need for clearly defined processes in order to attain quality outcomes. In the context of education, school principals can effectively document and standardize various processes, ranging from curriculum development to classroom management. This strategic approach not only fosters consistency but also minimizes the occurrence of errors, thereby facilitating enhanced control and continuous enhancement of educational procedures. Consequently, such an approach significantly contributes to the improvement of students' academic achievement.

In a school system, suppliers can encompass a wide range of entities, such as textbook publishers, technology providers, and service providers. The application of Total Quality Management (TQM) principles involves the establishment of robust relationships with these suppliers, ensuring they consistently meet stringent quality standards, and fostering collaboration to enhance the overall learning environment. The school's principal, in their role as the leader of the institution, plays a pivotal role in this process. They are responsible for evaluating suppliers based on specific quality criteria and, importantly, for encouraging continuous improvement among these valued partners.

TQM recognizes the significance of offering training and development opportunities to employees. In the context of a school, this encompasses professional development programs for

teachers, monitoring and training for staff in effective classroom management, and workshops focused on new teaching methodologies. By investing in the growth and development of teachers, schools can enhance the overall quality of education, ultimately leading to improved academic performance among students.

By applying the principles of Total Quality Management in the educational setting, schools can create a culture of continuous improvement, provide high-quality education, and meet the needs and expectations of parents and students in terms of improved academic grades.

### **1.8 Conceptual Framework**

According to Mugenda & Mugenda (2003), a conceptual framework is a diagrammatic representation used to illustrate the relationships between variables. It serves to demonstrate how independent variables can exert influences on dependent variables. In essence, it functions as a model for identifying and visualizing the key concepts being examined and the proposed relationships. Figure 1 depicts the study's conceptual framework.

**Figure 1**

*Conceptual Framework Showing the Relationship among Variables*

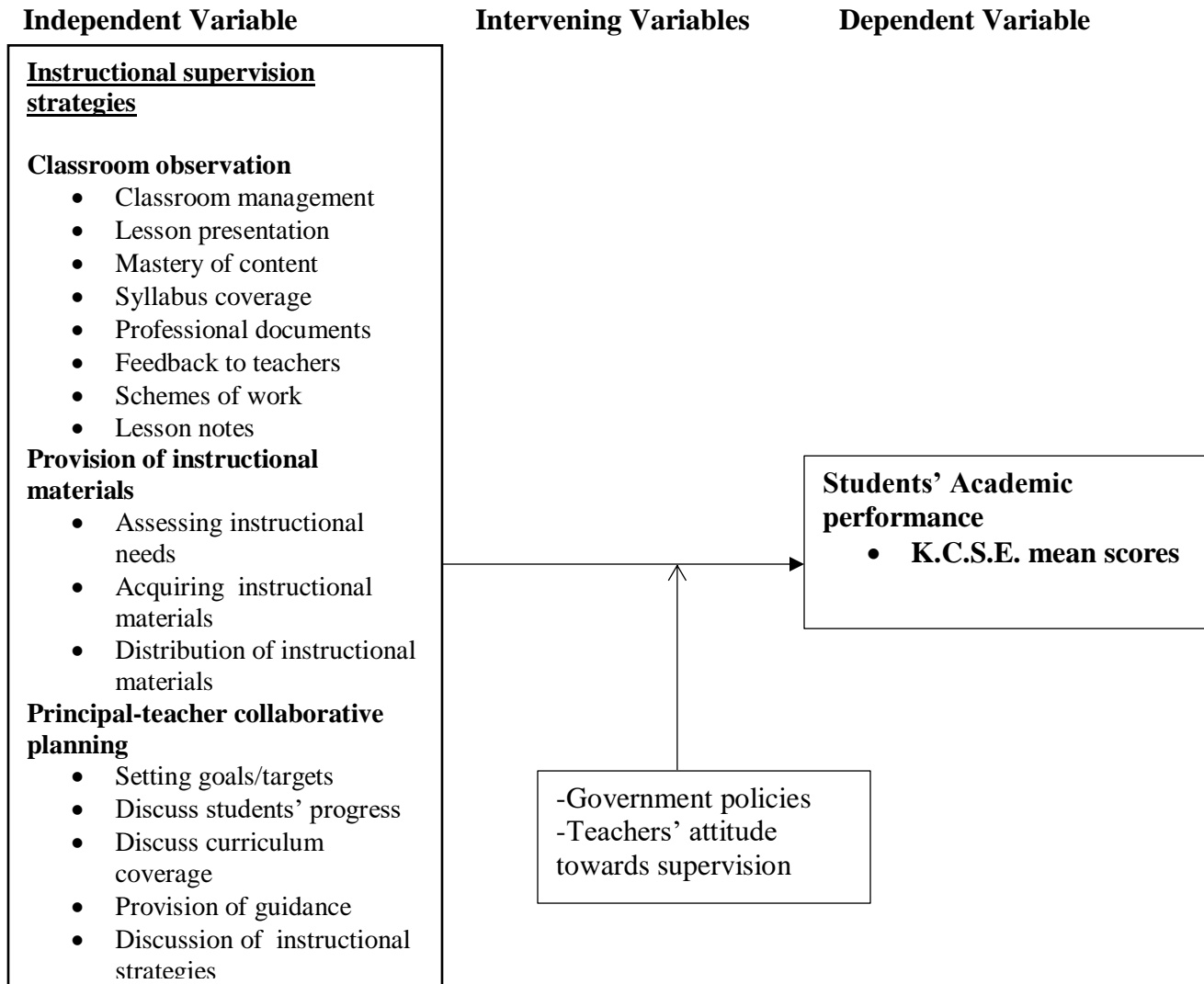


Figure 1 illustrates the interconnections of the variables. Principals' instructional supervision strategies are an independent variable, encompassing classroom observation, the provision of instructional materials, and collaborative planning between principals and teachers. The principal's classroom observation can have an impact on students' performance. For example Classroom observations by the principal provide an opportunity to evaluate the effectiveness of

teachers. By observing instructional strategies, classroom management, and the overall learning environment, principals can provide feedback and support to help teachers improve their practices. When teachers enhance their teaching methods, it directly benefits students and can lead to improved performance. Principals can also offer valuable feedback to teachers based on their observations. This feedback can address areas for improvement, suggest alternative teaching strategies, or acknowledge effective teaching practices. When teachers receive constructive feedback and support from the principal, they can make necessary adjustments to their teaching methods, leading to a more engaging and effective learning experience that enhances students' performance.

Regarding instructional materials, the provision of instructional materials by the principal can have a significant impact on students' performance. The provision of well-designed instructional materials can help students better understand complex concepts. Visual aids like diagrams, graphs, and charts can make abstract ideas more tangible and accessible. Interactive resources and technology tools can provide simulations, virtual experiments, or real-life examples, allowing students to grasp difficult concepts through active participation. When students have access to relevant and engaging instructional materials, it can also lead to increased motivation to learn. High-quality materials can spark curiosity, capture students' interest, and make the learning experience more enjoyable. This, in turn, can lead to improved attentiveness, participation, and a greater willingness to explore and delve deeper into the subject matter, hence improved performance.

Collaborative planning between principals and teachers can significantly improve students' academic performance. When principals and teachers collaborate in the planning and decision-making processes, it fosters a supportive environment that directly benefits students.

Collaborative planning enables principals and teachers to align their goals and objectives for both the school and individual classrooms, ensuring that everyone works towards a common vision. This alignment enhances coherence and consistency in the teaching and learning process.

The study also considered government policies and teachers' attitudes towards supervision as intervening variables that can impact the performance of learners. Government policies, particularly those related to education funding, have a direct influence on students' performance. The amount of funding allocated to education by the government can significantly impact the quality of education provided to students. With sufficient funding, educational institutions can ensure they have the necessary resources, infrastructure, and well-trained teachers, all of which can positively affect students' performance. Furthermore, government policies that provide access to comprehensive student support services, including counseling, health services, and nutrition programs, can play a significant role in improving students' performance. These services address various barriers to learning and support students' overall well-being, which, in turn, can have a positive impact on their academic achievements.

The attitude of teachers towards supervision by the principal can significantly influence their teaching and students' performance. The principal's role in supervising and evaluating teachers is pivotal in ensuring the quality of education within a school. When teachers perceive the principal's supervision as supportive, fair, and focused on professional growth, it can positively impact their teaching performance. For example, if teachers feel that the principal's supervision aims to help them improve their teaching skills and enhance student learning, they are likely to be more motivated and engaged in their work. Positive feedback, constructive suggestions, and professional development opportunities provided during instructional

supervision can inspire teachers to strive for excellence and, in turn, improve students' academic performance.

### **1.9 Operational Definition of Key Terms**

**Academic Achievement:** This refers to how student perform in terms of mean grade achieved in Kenya Certificate of Secondary Education (KCSE).

**Classroom Observation:** This refers to the process by which the principal observes a teacher's instructional practices in the classroom. It involves observation of teacher-classroom management, lesson presentation, and mastery of content, syllabus coverage, professional documents, and feedback to teachers, and learners' notes.

**Government Policies:** These are sets of rules, regulations, and actions implemented by a government to achieve specific goals. In the current study, government policies were looked at in the form of funding allocated to schools by the government, provision of access to student support services, including counseling, health services, and nutrition programs, employment of teachers, and student admissions in schools. These were studied in relation to how they affect students' academic achievement.

**Instructional Materials:** This refers to any resources or tools that facilitate the teaching and learning process, such as textbooks, workbooks, visual aids, technology tools, and supplementary resources.

**Principals' Instructional Supervision Strategies:** This refers to the methods and approaches used by school principals to support and enhance the teaching and learning processes in their schools. They include classroom observation, provision of instructional materials, and principal-teacher collaborative planning.

**Principal-Teacher Collaborative Planning:** This refers to a process where school principals and teachers collaborate as a team to develop and implement educational plans and strategies that promote effective teaching and learning within the school. It involves joint efforts in setting goals and targets, discussing students' progress, reviewing curriculum coverage, providing guidance, and discussing instructional strategies, all of which can enhance students' academic performance.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the reviewed literature according to the objectives of the study. The literature is reviewed on a global, continental, regional, national, and local context in relation to the three objectives of the study. The chapter also identified the existing gaps in the literature, which this study sought to fill.

#### **3.2 Principals' Classroom Observation Strategy and Students' Academic Achievement**

The principal's classroom observation is a crucial process in which the school principal or an administrator visits a teacher's classroom to observe their teaching practices and interactions with students. This observation serves as a vital component of the teacher evaluation process. During the classroom observation, the principal closely examines how the teacher delivers lessons, manages the classroom, engages students, and utilizes instructional strategies. These strategies are designed to enhance the learners' educational experiences and, consequently, their academic performance.

In Turkey, a study conducted by Bellibaş (2023) aimed to investigate the impact of classroom observations on teachers' self-efficacy and instructional practices. Additionally, the study aimed to explore the relationship between the feedback provided by principals and its effects on both teachers and students' performance. To examine these relationships, Confirmatory Factor Analysis and Structural Equation Modeling were employed, using data from the Teaching and Learning International Survey. The study's findings revealed a significant direct correlation between the feedback given by principals and teachers' instructional practices. Furthermore, there was an indirect relationship mediated by teacher self-efficacy in instructional

practices. The study also highlighted that classroom observations by principals create an environment where learners actively engage in their learning, ultimately enhancing their performance. This study underscores the critical role of principals in shaping the performance of both teachers and students. However, it lacks a discussion on various aspects of principal supervision, including classroom observations, the provision of instructional materials, and collaborative planning between principals and teachers. These aspects were investigated in this study in the in the context of how they influence students' academic performance in public secondary schools in Gatanga Sub-County, Murang'a County, Kenya.

Classroom observation holds significant importance in teacher appraisal and improvement systems, serving as a crucial formative anchor for professional development. Martinez (2016) conducted a study to evaluate and enhance teaching through classroom observation. The research examined sixteen purposively selected observation systems in six countries, including high-performing Singapore and Japan, regional exemplar Chile, the three largest school districts in the United States, and other examples in Australia, Germany, and the United States to ensure diversity in the sample. The study provided an analytical framework to comprehend various aspects of classroom observation systems, such as conceptual, methodological, and policy factors that shape them. The research revealed that the sixteen observation systems shared consistent overall purposes, but they differed in how they operationalized good teaching, the level of standardization in the observation process, emphasis on validation, and information utilization. However, the study did not explore the impact of classroom observation on learners, leaving a gap that the present study aims to address. This study sought to determine the extent to which principals' classroom observation strategies influence students' academic achievement in public secondary schools in Gatanga Sub-County.

By doing so, it aims to shed light on how students are affected by classroom observation practices, bridging an important gap in the existing research.

A related study by Venessa and Huong (2023) was conducted on the role of classroom observation in the development and assessment of school teachers in Vietnam. They conducted a narrative review of current policy and relevant research literature. The review had two primary objectives. Firstly, it aimed to contribute to the growing body of Vietnam-based studies to enhance the understanding of recent policy reforms on teachers' professional development in Vietnam. Secondly, it sought to increase access to published work on the topic in Vietnamese for English-speaking scholars who might not have easy access to it. The study found that there is a long-standing tradition of using observation as a tool for teacher performance evaluation in Vietnam. However, there have been policy reforms and research studies that have repositioned observation as a means for teacher learning and development.

Despite these efforts, the implementation of these reforms has been inconsistent across Vietnam, partly due to resistance from a culture of compliance in schools. The study highlighted that classroom observation is an effective tool for teacher learning and development. It involves systematically observing a teacher's instructional practices and interactions with students in the classroom. This process provides teachers with valuable feedback from administrators, peers, or instructional coaches, enabling them to reflect on their teaching strategies, identify strengths, and address areas for improvement. Consequently, teachers can identify their professional development needs and set specific goals for improvement, leading to continuous learning and improved teaching practices over time. Furthermore, the study argues that observations should be tailored to individual teachers' needs, providing personalized support based on specific challenges and strengths. This personalized approach facilitates more targeted and impactful

professional development. Although the study thoroughly explores the impact of classroom observation on teachers' professional growth, it does not address the performance of learners, creating a gap that this study aimed to fill.

A study by Leavani and Guimaraes (2020) explored the characteristics of a global set of Classroom Observation Protocols with a focus on their design goals and the value they offer to Engineering Education in active learning environments. The researchers utilized a Systematic Literature Review method, which involves a comprehensive search process across 23 global databases from January 2000 to December 2020. After conducting a rigorous screening and quality assessment, they selected 109 literature sources for an in-depth analysis. The study findings highlight the existence of 111 classroom observation applications and 68 distinct protocols. Notably, there was a noticeable upward trend in the creation of new protocols and applications over the last 6 years, leading to a significant information overload for practitioners in the field. To address this challenge, the authors analyzed the 68 protocols, aiming to characterize them and identify their strengths within the context of Engineering Education. They adopted a systematic 4-category and 5-dimension framework to compare these protocols effectively.

Moreover, the research employed bibliometric data to understand how observation strategies in active learning environments have incorporated Engineering disciplines in various applications over time. The findings indicate that 82% of the total observed protocols have integrated Engineering disciplines in their design and implementation. In essence, this study sheds light on the diverse classroom observation protocols available globally, assesses their relevance to Engineering Education, and proposes a systematic framework to help educators and practitioners navigate through the vast amount of information in the field. This research aimed to

support the improvement and implementation of effective teaching strategies in active learning environments for Engineering Education across the globe. But this study aimed to find out how principals' classroom observation strategy influences students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

A research by Dwikoranto (2023) was conducted at Foster Vocational Schools in Bojonegoro Regency, Indonesia. The subjects in this study were six principals of vocational schools: Taruna Mandiri Ngasem, Vocational School Association of Teachers of the Republic of Indonesia (located in Bojonegoro), Al Kyai Sukosewu, Wali Songo Sugihawaras, six Kedungadem, and Miftahul Huda Baureno. The results of the study showed that the managerial supervision of the collaborative approach can improve principals' performance abilities in carrying out academic supervision. With the increased performance of school principals in academic supervision, all supervised teachers experience direct positive benefits from academic supervision, including observation of classroom instruction, which also enhances learners' performance. The study clearly shows that principals' supervision of the classrooms, emphasizing and identifying teachers' areas of improvement, and ensuring that the collaborative approach is being implemented effectively lead to effective academic achievement for learners. While this study was focused on vocational schools, this study concentrated on public secondary schools to examine how principals' classroom observations influence students' performance in terms of KCSE mean scores.

A study by Barbara and Cunha (2018) was conducted to evaluate a program in Brazil that aimed to improve secondary schools by providing classroom observation feedback and expert coaching. The coaching content was based on *Teach like a Champion* by Douglas Lemov, which offers practical strategies to enhance teachers' effectiveness by maximizing instructional time

and student engagement. The program targeted pedagogical coordinators responsible for supporting teachers in improving their instruction. The results from treatment schools showed that the program increased the skills of pedagogical coordinators, increased teachers' instructional time, raised student engagement, and led to statistically significant student learning gains.

In particular, the program schools performed 0.05–0.09 standard deviations higher in 10th-grade math and Portuguese on a state test and 0.06 standard deviations higher in Portuguese on a national high school leaving test (12th grade). The use of high-quality coaching delivered via Skype helped keep costs at \$2.40 per student, making the program a cost-effective and promising strategy for improving teachers' classroom effectiveness in schools. While the study demonstrated the importance of teachers' classroom practice, as measured through classroom observations, for student learning and socio-emotional skill development, it should be noted that the study was conducted in Brazil, which has a different school setup compared to Kenya. Therefore, this study focused on Kenya, specifically in Gatanga Sub-County, Muranga County, to investigate how principals' classroom observation strategies influence students' academic achievement.

School leadership is highly conspired to be at the core of running effective schools in Pakistan. Rafael (2023) conducted a study aimed at exploring the factors inhibiting instructional leadership practices in the developing world, taking Pakistan as a case study. The research used a qualitative approach and a case study method, concentrating on the phenomenon of instructional leadership in a semi-government school in the context of Northern Sindh, Pakistan. Considering the area under investigation, the school manager and principal were purposefully selected as the research participants. Ten teachers were also consulted to enrich and triangulate the data. The

school leaders (manager and principal) were interviewed individually using semi-structured interviews, whereas the teachers were interviewed in groups. The emerging data was analyzed using thematic analysis.

The results showed that the school leaders' instructional leadership practices were mainly inhibited by their partial understanding of their responsibilities, limited exposure to capacity-building opportunities, teachers' attitudes, and a communication gap between the school and the upper management responsible for overseeing the academic activities of the school. The study argued that unless these influential factors are considered by policymakers and educational leaders, it is highly unlikely for school leaders to exercise instructional leadership. This study revealed that instructional leadership, which often involves classroom observations, was not effectively practiced by the school leaders. Yet, observation is important as it can help identify students' learning needs, challenges, and strengths, enabling instructional leaders to recommend appropriate instructional strategies and interventions that can enhance students' performance. This study sought to find out whether school principals in Gatanga Sub-County experience the same challenge. The study by Rafael used interview guides to collect data from teachers, but this study used questionnaires to collect data from teachers, hence the feeling of a methodological gap.

A related study was conducted in Nigeria by Ossai and Kingsley (2023). The study looked at principal instructional supervision and its impact on the academic performance of public secondary school students. The study adopted a descriptive research design. Two research questions and two hypotheses guided the study. The instrument used for the study was a self-structured 10-item questionnaire. The reliability of the instrument was determined using the test-retest method. The mean and standard deviation were used to answer the research questions, and

the criterion level was 2.50, while the Z-test was used to test the hypotheses at a significance level of 0.05.

Findings revealed that principals' classroom visitation and curriculum implementation strategies have an impact on public secondary school students' academic performance in Oshimili North of Delta State. The study recommended that there should be regular training for principals on classroom visitation, curriculum implementation, and other instructional supervision techniques. It was clear from the study that principals' classroom visitation fosters a supportive learning environment and ensures that the schools provide the best possible education to their students. However, this study was general in terms of its discussion of students' performance. Different from the study by Ossai and Kingsley, This study sought to find out the extent to which principals' classroom observation strategy influences students' academic achievement in public secondary schools in Gatanga Sub-County, Murang'a County, with a specific focus on students' performance in terms of KCSE mean scores.

In Uganda, Lubwama and Kasule (2023) conducted a study to explore the impact of the collaborative school inspection approach on teacher instructional effectiveness in government-aided schools within Nakisunga County, Mukono district. The study focused on various aspects of teacher instructional effectiveness, including reporting on pupil academic achievements, teacher attitudes, effective planning, attendance, and pedagogical approaches. The collaborative school inspection approaches were assessed based on support supervision, classroom observation and feedback, trust, and respect. The research employed a cross-sectional survey mixed research design, incorporating both quantitative and qualitative methods. The sample consisted of 178 participants, including teachers, head teachers, school inspectors, and education officers. Quantitative data was gathered through self-administered survey questionnaires, while

qualitative data was obtained through interviews and focus group discussions. The results indicated that all sub-variables of the collaborative school inspection approach, including classroom observation by school heads, significantly influenced teacher instructional effectiveness. Particularly, classroom observation by school heads emerged as a valuable tool for enhancing the overall quality of education and fostering professional growth among teachers. By identifying teachers' strengths and areas for improvement and providing constructive feedback and support, school heads can assist teachers in developing their teaching skills and implementing effective instructional strategies. Despite the positive findings, it is essential to note that the previous study lacked a discussion on the performance of learners. This highlights the significance of conducting the current study, which aims to explore the impact of principals' classroom observation strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Murang'a County, Kenya. This research endeavored to help bridge the existing gap and provide valuable insights into the subject matter.

Heads of schools play a crucial role in the education system, as they have a significant influence on teachers' commitment to improving school performance and attaining quality education. A study conducted by Mwesiga and Okedo (2018) in Tngania aimed to investigate the effectiveness of heads of schools in supervising teachers' teaching activities in secondary schools in the Kagera region. The study was guided by the transformational theory, and while several studies on school leadership and teachers' commitment as factors for school performance were available in the literature, there was still a need to investigate the effectiveness of school headship in supervising teachers through classroom observation in secondary schools as central variables for effective teaching.

The study employed a convergent parallel design with a mixed research approach. The target population included all heads of schools, academic masters/mistresses, and teachers in public secondary schools in the Kagera region. The sample size comprised 32 schools, 32 heads of schools, 32 academic masters/mistresses, and 310 teachers. Probability and non-probability sampling techniques were used to select participants. Data collection instruments included questionnaires, an interview guide, and a document analysis guide. Quantitative data were analyzed using descriptive statistics, while qualitative data were analyzed using thematic analysis. Hypotheses were tested using Pearson Correlation.

The results suggested a strong and significant relationship between school headship and teachers' teaching commitment. The study further revealed that teacher supervision through classroom observation is essential to enhancing both teachers' and students' academic performance when conducted effectively and collaboratively. Regular class observations allow administrators or mentors to identify areas where teachers may need additional support or professional development. By providing targeted training and resources, teachers can improve their instructional techniques, classroom management skills, and subject knowledge, benefiting students. Through class observation, supervisors can provide constructive feedback to teachers regarding their teaching methods, communication, and classroom strategies. This feedback helps teachers refine their approach, leading to more engaging and effective teaching practices that positively impact students' learning experiences. However, the study by Mwesiga and Okedo lacked clarity on the nature of academic performance. In contrast, this study specifically focused on students' performance in terms of KCSE mean scores, thereby addressing this gap in the research.

Teacher classroom practices have been identified as the primary contributing factor to the low learning outcomes of learners' grades in Kenya. To address this issue, Ngaru and Nyaguthii (2020) conducted a study aimed at establishing the effects of teacher mentoring on the classroom practices of lower-grade primary school teachers in Kwale County, Kenya. Specifically, the study focused on the impact of class supervision as a form of teacher mentoring on improving classroom practices in Kwale County. The research utilized a one-group repeated measures quasi-experimental design, where a cohort of 40 teachers from 22 public primary schools received mentoring for 20 months, spanning from May 2016 to October 2018. During this period, a classroom observation tool was used to collect data, and the tool demonstrated a high level of reliability, with Cronbach's Alpha coefficients of 0.84, 0.81, and 0.79 for the years 2016, 2017, and 2018, respectively. The collected data was analyzed using Repeated Measures ANOVA, revealing that teacher mentoring had a statistically significant effect on the mean classroom practice score ( $F = 6.282$ ,  $df = 2$ ,  $p = 0.003$ ). Notably, significant mean differences were observed between 2016 and 2017, favoring 2017, and between 2016 and 2018, favoring 2018. However, there was no significant mean difference between 2017 and 2018. In conclusion, the study found that teacher mentoring, specifically through effective class observation while teachers are teaching, was effective in improving teacher practices. It is worth noting that this study was conducted in Kenyan primary schools. However, this study was conducted in secondary schools and used a descriptive design.

A related study conducted by Barrogo (2020) analyzed teachers' perceptions of the standardized classroom observation tool. The author defines a standardized classroom observation tool as a structured instrument used to objectively and consistently assess and evaluate teaching practices and classroom interactions. These tools aim to provide educators and

administrators with a systematic approach to gathering data on teaching effectiveness and student engagement during classroom instruction. Barrogo employed a descriptive study design with a survey as the primary data collection instrument, involving 200 public school teachers selected through simple random sampling.

The survey utilized a questionnaire constructed by Wairimu (2016), and the data analysis was carried out using statistical tools such as frequency, mean, percentage, and standard deviation with the aid of Microsoft Excel. The study revealed that eight out of the ten statements regarding the standardized classroom observation tool received an overall "strongly agree" response from the participants. Consequently, the study concluded that the standardized classroom observation tool serves as a valuable guide for teachers to assess their performance and plan for improvement, leading to an enhancement of teachers' preparation and competency. However, it's worth noting that the study lacks information about the involvement of principals, indicating a gap in the research. The current study aims to address this gap by investigating how principals' classroom observation strategies influence students' academic achievement, particularly in terms of KCSE mean scores, in public secondary schools within Gatanga Sub-County, Kenya. The cited study by Barrogo used Microsoft Excel, but this study used SPSS to analyze the data.

Instructional leadership is perceived as a controlling function in secondary schools. Consequently, Ndwiga and Nyaga (2023) conducted a study on instructional leadership as a controlling function in secondary schools in Rangwe Sub County, Kenya. All 41 secondary schools in Rangwe Sub County were included in the study, and the targeted respondents were teachers and principals. A purposive sampling method was used to select the respondents from each school. Data collection was done using a principal self-rating questionnaire, a teacher

perception questionnaire, and a document analysis checklist. The collected data was analyzed using descriptive statistics, an independent sample T-test, and regression analysis. The study found that school principals involved their deputies, heads of departments, and directors of studies in conducting day-to-day instruction in their schools. It was also revealed that classroom visits and observations of teaching and learning significantly influenced student learning outcomes in secondary schools. The study concluded that involving the expertise of immediate juniors in day-to-day instructions is an effective way of implementing instructional leadership roles for school principals in secondary schools. Therefore, the study advocates for the school principal to become the overall instructional supervisor and instructional improvement catalyst. However, the study lacked clarity regarding the nature of performance. This study aims to fill this gap by examining students' performance in terms of KCSE mean scores.

### **2.3 Principals' Provision of Instructional Materials to Teachers and Students' Academic Achievement**

The development of teaching and learning resources has garnered the attention of scholars in China. As a result, Jiachen and Zhang (2023) conducted a study on the development of Artificial Intelligence (AI) Teaching and Learning Resources for Compulsory Education in China. The purpose of this study was to enhance the quality of education among students. In China, it has become mandatory for compulsory education students to take an Artificial Intelligence course. However, not all teachers and schools are fully prepared and ready to deliver this course effectively. One of the major obstacles is the lack of adequate teaching and learning resources, which require significant time and effort for schools and teachers to design and develop. To address the challenge of insufficient resources for teaching and learning AI from grade 1 to grade 9, the researchers developed an AI knowledge structure and instructional

resources based on the Chinese national curriculum for information science and technology. The comprehensive AI syllabus they developed contains 90 core concepts, 63 learning indicators, and 27 teaching and learning resources, all of which have been implemented.

These resources have been adopted as model courses in teacher training programs, and an exemplary course has been implemented in primary schools to verify the effectiveness of these resources. The study revealed that the utilization of effective AI resources in Chinese education is of great importance in facilitating teaching and learning. AI can provide real-time feedback and assistance to students, helping them better understand complex topics and solve problems. Moreover, AI systems can simulate one-on-one tutoring experiences, making learning more interactive and effective. This study was done in China and focused on AI as a resource in teaching and learning. This study was different in that it focused on the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

Teaching materials are crucial resources for both teachers and students to facilitate the learning process. Hence, it is imperative to develop innovative teaching materials that can empower students to achieve exceptional learning outcomes. One such innovative, creative, and interesting teaching material is the Social Sciences Animation Video-Based Teaching Material (S2AV). A study conducted by Risnanda and Usmiyatun (2023) took place in Indonesia with the objective of investigating the impact of commercializing social studies teaching materials through the use of animated videos for class VIII junior high school students, focusing on the subject of "Indonesian Community Plurality." This development research utilized the 4-D method. The study's findings revealed that the S2AV learning media was deemed valid, scoring an average of 3.83 based on material expert validation and 3.87 based on media expert

validation. Furthermore, the response from the eighth-grade students was overwhelmingly positive, with a satisfaction rate of 97%. The research highlighted several advantages of using animated videos as teaching materials, emphasizing their effectiveness and engagement in enhancing students' learning experiences.

Animated videos offer various benefits that make them well-suited for educational purposes: They are visually appealing, capturing students' attention more effectively than traditional text-based materials. Additionally, the use of colors, animations, and illustrations can aid in simplifying complex concepts, making them easier to comprehend and remember. Moreover, animated videos can break down intricate topics into more manageable parts, facilitating students' grasp of challenging concepts and improving information retention. However, it is essential to note that the study solely focused on the use of animated materials as resources in teaching and did not mention the principal's involvement in providing these materials. Addressing this gap in this study could be the focus of future studies.

The availability of instructional materials can have a significant impact on students' performance and learning outcomes. Effective instructional materials play a crucial role in facilitating the teaching and learning process by providing students with the necessary resources and support. Ogunode (2023) conducted a qualitative study on the deployment of instructional materials in Basic schools in Nigeria, focusing on the impact of instructional materials and factors that hinder their effective deployment. The study utilized secondary data from both print and online publications. The findings of the study concluded that the use of instructional materials has resulted in an improvement in teachers' job performance and students' academic performance in basic education in Nigeria. However, several challenges were identified, including poor funding of basic schools, insufficient improvisation, high costs of instructional

resources, inadequate storage, poor planning, a lack of maintenance, and insufficient capacity building in instructional materials management. Additionally, corrupt practices were identified as hindering the deployment of instructional materials in Nigerian basic schools.

To address these issues, the study recommended several measures. The government should increase funding for basic schools; school administrators should encourage teachers to improvise with available resources; and the government should subsidize instructional materials for schools and teachers. Furthermore, school administrators should provide a furnished room to be used as a storage space for instructional materials. The study also suggested that the government should deploy ICT facilities to monitor funds released for school administration at the basic school level. This measure would ensure the proper provision of teaching materials in schools, ultimately enhancing teaching quality and students' academic performance. While the study by Ogunode was purely qualitative, the study aims to utilize both qualitative and quantitative paradigms to benefit from the advantages of each approach. By doing so, the research sought to have a more comprehensive and well-rounded understanding of the instructional material deployment situation and the effect it has on students' performance.

A study was conducted by Fokong and Yensinkem (2023) to investigate the impact of instructional resources and supervision on students' academic performance in Mezam Division, Cameroon. The research was guided by two research questions and two null hypotheses. The study utilized a survey research design and incorporated Vygotsky's sociocultural theory and Gagne's nine events of instruction. The population for the study comprised 10 Geography Heads of Departments (HODs), 50 Geography teachers, and 1100 geography students. A sample size of 339 respondents was selected for the study.

To collect data, the researchers employed interview guides and questionnaires with high reliability coefficients of 0.83 and 0.81, respectively. The research questions were analyzed using the mean, standard deviation, and frequency. The findings indicated that the use of instructional resources by teachers and HODs had a positive and significant impact on students' academic performance. However, the use of instructional supervision positively affected students' academic performance but without statistical significance at the secondary school level in Mezam Division. Based on these results, the study recommended the provision of effective instructional resources to enhance students' performance. It also suggested organizing regular seminars to equip supervisors and teachers with the necessary skills for instructional supervision and effective teaching. The study highlights the crucial role of instructional materials in effective teaching and improved learner performance. Well-designed instructional materials capture students' attention, making the learning experience more engaging and interesting. Actively engaged students are more likely to retain information and actively participate in the learning process. Additionally, instructional materials can cater to diverse learning preferences and styles, such as visual, auditory, and kinesthetic, ensuring that all students have an opportunity to grasp the content effectively. While Fokong and Yensinkem conducted their study in Mezam Division, Cameroon, this study aims to explore if similar findings can be observed in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

In Egypt, Open Educational Resources (OER) are believed to play a vital role in education as a substitute for traditional textbooks. OER refers to freely accessible learning materials that are available online and can be used, modified, and shared by teachers, students, and the general public without cost or copyright restrictions. These resources come in various forms, including textbooks, lecture notes, videos, and interactive simulations. In a study by

Eiman (2021), it was argued that science, technology, engineering, and mathematics (STEM) schools in less advanced countries are challenged to maintain students' motivation and interest in STEM fields, mainly due to a lack of suitable materials and teacher competence. In a context where STEM teachers generally lack the capacity to design and develop good instructional materials, utilizing existing quality open educational resources (OER) as instructional materials can be an effective way to support STEM education at little or no additional cost.

This study explored how and why STEM teachers in a less advanced country, where teaching and learning materials are lacking and students' interest in STEM is generally low, utilize OER. Qualitative research, particularly a case study, was conducted through interviews with six (6) teachers and nine (9) students in a STEM high school in Egypt and through class observations and syllabi analysis. The analysis revealed that STEM teachers utilized a variety of OER predominantly for three pedagogical purposes, namely: promoting and maintaining students' interest in STEM fields; seeking information needed for learning; and developing student competencies required in the STEM workforce. Findings suggest that OER can be effectively employed to promote student motivation and provide subject content in less advanced countries, positively impacting students' active learning and competency building. This study, though it explored resources used in teaching with the main focus on Open Educational Resources (OER), was purely qualitative. However, this study utilized both qualitative and quantitative paradigms to explore the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

The education of pre-service science teachers requires inquiry and resource-based instruction to develop both hands-on and mind-on skills among them. This can be achieved by

regularly utilizing a variety of instructional resources to support the teaching process. In a study conducted by Mukagihana (2020) in Rwanda, the aim was to identify the types of available biology instructional resources and their usage in teaching pre-service biology teachers. The research design employed was a descriptive survey, and data was collected from eighty-two pre-service biology teachers and five biology lecturers in three private universities offering education in Rwanda. The data was analyzed using frequency counts and percentages.

The findings of the study revealed the presence of several biology instructional resources, such as classroom chairs, chalkboards, laboratories, microscopes, centrifuges, slide projectors, and biology textbooks. However, certain resources, like a class whiteboard, classroom overhead projectors, electrophoresis units, recorders, and polymerase chain reaction machines, among others, were found to be absent. Additionally, the study indicated a low level of utilization of the available biology instructional resources in teaching pre-service biology teachers. Based on the findings, it was recommended that adequate biology instructional resources be provided and that their usage in teaching biology be closely monitored. The study emphasized the significance of not only having access to essential resources but also having the knowledge to effectively utilize them during instruction. Notably, the study targeted college students, leaving a gap in research focusing on secondary school students. The current study aims to address this gap by focusing on secondary school students. Specifically, this study seeks to find out the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

Another related study in Rwanda was conducted by Habiyambere (2017). This study aimed to determine the relationship between instructional resources and students' academic performance in government-aided secondary schools in Rwanda, with a focus on Karongi

District. The study was guided by the following objectives: to assess the availability of instructional resources in selected government-aided schools; to assess the academic performance of students in selected government-aided schools; to establish the difference in the academic performance of the selected government-aided schools; and to determine whether there was any difference in the academic performance of secondary school students due to the use of instructional materials.

To fulfill these objectives, a descriptive survey using a correlational design was conducted on 120 students, one head teacher, and three purposefully selected class teachers. Questionnaires were used to collect data from the respondents, and the findings were analyzed inferentially and presented in tables. The findings revealed that government-aided schools were better facilitated in terms of resources and performed much better than private schools in comparison. The independent sample test of equality of mean score at the national examination was significant at  $p = 0.05$ , and the availability of resources positively influenced academic performance by 22%. The study recommended that educational planners critically plan for how to make resources available to schools facing resource scarcity in order to prevent the growing educational inequality currently observed in Rwanda. This study clearly showed that in situations where resources are readily available in schools, academic performance tends to be more effective. This study sought to establish if similar findings can be realized in Kenya.

Learners with dyscalculia in integrated primary schools in Arusha, Tanzania, have been performing poorly in the Primary School Leaving Examination (PSLE). Therefore, Nyudule and Karugu (2016) sought to investigate the impact of instructional resources on the mathematics performance of learners with dyscalculia in integrated primary schools in Arusha city. The main objectives of the study were to identify the types of instructional resources used by teachers who

teach mathematics in integrated schools and to assess the adequacy of the instructional resources used for teaching Mathematics in these schools. The study employed a descriptive design, involving generalized statistics abstracted from 92 respondents, including head teachers and subject teachers from four schools. The sample size of 52 respondents was obtained using purposive sampling. Data collection involved the use of a questionnaire administered to head teachers and teachers, complemented by a screening tool checklist. Data analysis was conducted manually and computed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics were applied to present the findings.

The study revealed that graphic and regalia resources were the most commonly used by teachers. However, it also established that all five main types of instructional resources, namely audio, visual, audio-visual, graphic, and realia resources, were either inadequate or lacking. Based on the findings, the study recommends that the Government should provide essential instructional materials such as computers and computer software, mathematical kits, radio cassettes, and tape recorders to primary schools. These resources are vital for enhancing the effective teaching and learning of mathematics. Additionally, the Ministry of Education and Culture should take responsibility for providing instructional resources to schools. This study focused on learners with dyscalculia in primary schools. This study sought to be different in that it focused on secondary school students to establish how principals' provision of instructional resources impacts the performance of learners.

The availability and usage of instructional resources are vital for successful teaching and learning in a school setting. In Kenya, a study was conducted by Sifuna and Mutsotso (2023) aimed at determining the types of ICT instructional resources integrated and the level of motivation and achievement in learning chemistry practical in secondary schools. The study was

conducted through a descriptive survey design. The target population for this study included chemistry teachers, form three students, and the heads of the institutions who served as key informants. The schools were selected using stratified random sampling to ensure equal representation of the region. Chemistry teachers and ICT assistants were selected using simple random sampling techniques, while purposive sampling was used to select the heads of institutions. Learners were selected using simple random sampling. Questionnaires were used as the main tool for data collection.

The findings showed that the majority of the participating schools have integrated ICT into the teaching and learning of chemistry practicals. Computers were available in the sampled schools and accessible to teachers and form three students for integration into chemistry teaching. Smartphones were also available, but only teachers accessed them. The smartphones contained appropriate content that could be integrated into teaching chemistry practicals. The media platform available on smartphones allowed teachers to project the content using overhead projectors and allowed learners to view simulations and virtual chemical processes. Only a very few schools lacked the necessary infrastructure, such as electrical installations and other fittings, required for ICT integration in the teaching and learning of chemistry.

A study was conducted by Ochenieng and Kibett (2017) aimed at investigating the influence of instructional resources on the learning of agriculture in secondary schools and its impact on employment creation in Vihiga County, Kenya. The research was carried out within Emuhaya Constituency, employing a qualitative research design through the use of a descriptive survey method. The study's target population consisted of youths who were enrolled in agricultural programs in secondary schools. Data were gathered using a structured questionnaire

and subsequently analyzed using the Statistical Package for Social Sciences, version 20, in alignment with the research objectives and questions.

To assess the relationship between instructional resources within secondary schools and employment creation, the researchers employed the Pearson Correlation. The results were summarized through the use of frequency tables and percentages. The study conclusively established a positive correlation between the utilization of agricultural instructional resources in teaching secondary school agriculture and the subsequent generation of employment opportunities. The findings underscored the significant impact of instructional resources on employment creation within the agriculture sector. The study highlighted that the incorporation of agricultural instructional resources can effectively cultivate practical skills and knowledge pertinent to farming among students. These acquired skills hold direct applicability within the agriculture industry and can aptly equip students for diverse careers in the realm of farming. However, it should be noted that the study by Ochenieng and Kibett (2017) primarily focused on the utilization of instructional resources in the context of agricultural studies. The study did not explicitly elucidate the providers of these instructional resources. Addressing this gap, was the focus of this study that aimed to delve into the influence of principals' provision of instructional materials to teachers on students' academic performance in the Kenya Certificate of Secondary Education (KCSE) examinations.

A related study was conducted by Ouma and Onchera (2016), wherein they argued that despite undergoing English courses, many learners in Kenya still lack proficiency in English reading skills. While certain factors associated with the teaching and learning of English reading skills may have been addressed, the impact of instructional resources remains a significant issue. As a result, the study delved into the availability and utilization of instructional resources in the

context of teaching and learning English reading skills in Secondary Schools within Teso North Sub County, Busia, Kenya.

The objectives of this study were twofold: firstly, to investigate the accessibility and utilization of instructional resources for teaching and learning English reading skills; and secondly, to examine the correlation between the use of instructional resources and the acquisition of English reading skills. The research encompassed a sample size of 440 respondents, comprising 400 students and 40 teachers. Employing a mixed-methods approach, the study gathered data through questionnaires, semi-structured interview schedules, and classroom observation schedules. The findings revealed that textbooks were the most frequently employed instructional resources. Moreover, it was demonstrated that there is a positive correlation between the use of instructional resources and the development of English reading skills. Notably, while this study bore relevance to the present investigation, it solely concentrated on English language learning. Conversely, this study encompassed all academic disciplines within secondary schools, thereby addressing this research gap comprehensively.

In their study Oyier and Amollo (2017) argued that effective planning for instructional resources in secondary schools requires dedicated budget allocation to ensure their availability and sufficiency. To ensure the adequate provision of science instructional resources, they emphasized the importance of a policy-driven budgeting process. The authors also noted that the impact of the budgeting process on instructional management and the level of involvement of science teachers lacked empirical investigation. As a result, their study adopted stakeholder theory and gathered data from science teachers in secondary schools within Nairobi County, Kenya. They selected a sample of 96 science teachers from 33 secondary schools in Nairobi County using stratified random sampling, and 89 of these teachers completed the questionnaires.

The findings of the study revealed that science teachers are actively engaged in the budgeting process for procuring instructional resources in Kenyan secondary schools. This research focused on the extent of teacher involvement in acquiring instructional materials for science subjects. In contrast, the present study aims to extend this inquiry by examining how the provision of instructional materials to teachers influences students' performance, specifically in terms of KCSE mean scores. By addressing this gap, this study sought to contribute to a deeper understanding of the relationship between instructional resource provision and availability, teacher engagement, and student academic achievement.

From the reviewed literature, it can be affirmed that instructional materials have garnered the attention of numerous scholars within educational institutions. This is due to the fact that effective and ample instructional materials are integral to achieving successful learning outcomes and enhancing learners' performance. Nevertheless, it is evident that limited literature has highlighted the provision of instructional materials to teachers in connection with the academic achievement of learners, a gap that this study aims to address.

#### **2.4 Principal-Teacher Collaborative Planning Strategy and Students' Academic Achievement**

In a study conducted in the United States of America, Brandley and Sulentic (2023), noted that collaboration between a principal and teachers lies at the heart of school improvement. The authors examined the role that trust between principals and teachers played in improving a school's culture, as well as how trust was established and maintained between a principal and the supervised teachers. Data sources for their study included weekly reflections, a questionnaire, and email artifacts. The study analyzed leadership practices through the lens of Tschannen-Moran's five facets of trust. Teachers evaluated their level of trust in their leader by rating the

characteristics of servant leadership. The results indicated that all five facets of trust were evident in the school leader.

Based on the characteristics and actions that contributed to trusting teacher-principal relationships, teachers demonstrated a high degree of trust in the principals. The predominant themes encompassed leader openness, leader competence and professionalism, leader benevolence, and the leader's high regard for teachers. The study conclusively illustrated that a collaborative relationship between a school principal and teachers plays a significant role in fostering school improvement. This partnership creates an environment where educators collaboratively work towards common goals, share insights, and leverage their collective expertise to enhance student learning and overall school performance. Collaboration between the principal and teachers allows for the establishment of a shared vision for the school's success and the setting of clear, achievable objectives. This alignment ensures that everyone is actively working towards the same goals, resulting in a more focused and purpose-driven school environment. However, it is worth noting that this study lacked a discussion about students' performance, highlighting the need for this study to address this gap.

A study was conducted by Thessin (2023) in the Netherlands focused on the concept of "joint work" and its impact on the learning and practice development of school principals. The study involved 12 principals and their supervisors and aimed to explore how collaborative work between principals and their supervisors influences the principals' professional growth. The main research questions of the study were centered on understanding the nature of joint work tasks between principals and their supervisors. These tasks encompassed the principal supervisor's role and the key tasks of the principal within the various situational contexts in which they occurred. The findings of this study highlighted several important insights: Collaborative efforts in creating

resources and tools to enhance the effectiveness of the school's leadership practices; collaborative classroom observations, likely involving both the principal and their supervisor, to gain insights into teaching practices and student interactions; and collaborative activities focused on planning, leading, and reflecting on teams within the school environment. The study revealed that joint work tasks occurred both in a one-on-one dyadic setting (between the principal and supervisor) and within the broader context of school-based teams. This indicates that collaborative efforts were not limited to individual interactions but also extended to team settings. The study revealed that collaborative joint work, particularly within school-based teams, was found to have a positive influence on principals' and other school-based leaders' instructional leadership learning. This implies that working together in teams led to enhanced opportunities for professional growth and development in terms of leading and improving instructional practices. It can be said that this qualitative study by Thessin underscores the significance of joint work between school principals and their supervisors in fostering professional growth, enhancing instructional leadership skills, and facilitating the development of effective practices within educational settings. The findings suggest that collaborative efforts, both in one-on-one interactions and team contexts, contribute to the overall advancement of educational leadership. However, the study made no mention of students' performance in terms of academic grades, which necessitates a study of this kind to fill the gaps.

A study whose focus was on assessing the instructional supervisory practices of school heads in relation to the full implementation of face-to-face classes was conducted by Ching (2023). The study aimed to understand the nature, types, and phases of supervision carried out by school heads and how these practices contribute to achieving instructional goals during face-to-face classes. Additionally, the research sought to determine if there were significant differences

in instructional supervisory practices and their effectiveness in achieving instructional goals among different groups of school heads, namely principals, teacher-in-charge, and head teachers. The study employed purposive sampling and collected data from 72 school heads and 144 teachers using two types of questionnaires: a survey questionnaire for statistical data and an interview guide for qualitative insights. The findings of the study revealed a significant difference in instructional supervisory practices and their effectiveness in ensuring the realization of instructional goals during the full implementation of face-to-face classes.

Based on the methods of supervision, the study recommended that school heads continue using techniques such as observation, collaboration, visitation, and teacher's guides to support teachers. Collaboration between teachers and principals emerged as a crucial factor in enhancing school performance. Effective collaboration between educators and school leaders was found to lead to improved teaching quality, student learning outcomes, and overall school success. This collaborative approach facilitates the sharing of innovative teaching practices and strategies, allowing principals to support teachers in experimenting with new approaches and receiving valuable feedback to drive continuous improvement. The study's geographical context, being conducted in the Philippines, highlights the need for further research in different educational settings. It suggests that the findings might not directly apply to other regions, such as Kenya. Thus, this study sought to establish how principal-teacher collaborative planning influences students' academic achievement in secondary schools in Kenya.

A study was conducted by Aboudahr, Olowoselu, and Ganesan (2023) aimed at examination of the leadership and administrative roles of head teachers in schools across Nigeria. Employing a qualitative research design approach and an interpretative perspective, the study aimed to thoroughly explore teachers' perceptions of the roles assumed by head teachers in

driving school improvement within Nigeria. The researchers employed a purposive sampling technique to select 16 teachers from four schools located in the north-central region of Nigeria. These participants were then engaged in a series of in-depth interviews, providing rich and nuanced insights. The interview data underwent thematic analysis using Nvivo 12 qualitative software. The study's findings underscore the significant impact of mentoring and interactive roles in the educational landscape. Notably, a prevailing theme emerged, emphasizing the imperative for head teachers to be conscientious about creating an enabling environment for both staff and students. In light of these conclusions, the study recommends that head teachers maintain open and continuous lines of communication with both teachers and students. Furthermore, the study highlighted the urgent need for head teachers to consistently implement reward and recognition mechanisms, which have been identified as pivotal factors contributing to optimal performance among both teachers and students. Beyond these noteworthy findings, the research emphasizes the critical importance of effective communication and collaborative relationships between teachers and students. This study serves as a foundational cornerstone for an ongoing investigation into the influence of principal-teacher collaborative planning on students' academic achievements within public schools in Kenya.

A study by Perpetua (2023) explored educational leadership practices that can sustain school improvement in selected Secondary Schools in Tanzania. This study employed a qualitative research approach for collecting and analyzing data. The results indicated that in the best-performing schools, leaders demonstrated an ability to collaborate with teachers in establishing the best practices that lead to improved student achievement. These leaders showed proficiency in making collective decisions, engaging school communities, instilling a teamwork spirit, and effectively delegating responsibilities with empowerment, support, and trust.

The study further emphasized the necessity for school leaders to demonstrate collaborative skills in the worst-performing schools. It demonstrated that collaboration between teachers and principals is pivotal for school improvement. However, the study also identified a methodological gap in that it solely utilized a qualitative research approach. In contrast, this study employed both qualitative and quantitative research methods to comprehensively understand the influence of principal-teacher collaborative planning on student performance.

A qualitative investigation was done by Wabugu (2019) into the impact of a school-based professional development program. This program, developed by the Headteacher and staff of a Kenyan primary school and delivered by a Teacher Education in Sub-Saharan Africa (TESSA) team, aimed to support teacher learning and growth. Prior to the implementation of the program, the TESSA team conducted classroom observations to assess teaching practices. Subsequently, the teachers at the school underwent training. To evaluate the effectiveness of the school-based training program, the TESSA team employed a comprehensive approach. This included classroom observations, an interview schedule, and a teacher questionnaire. These evaluations were conducted three months and one year after the completion of the training. The findings revealed that teachers experienced significant professional growth as a result of collaborative learning with both colleagues and school heads. The study emphasized that the collaborative efforts of teachers and school heads played a crucial role in addressing all aspects of student development, encompassing academic, social, emotional, and physical well-being. This collaborative synergy emerged as a means to provide a comprehensive education that effectively caters to the diverse needs of students. It's worth noting that the study employed a qualitative research design. However, in contrast, this study incorporated both qualitative and quantitative methodologies, leveraging the strengths of each paradigm to provide a more holistic

understanding of the influence of principal-teacher collaborative planning strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

## **2.5 Research Gaps**

The review of the related literature revealed several gaps. These gaps encompassed methodological, theoretical, geographical, and knowledge aspects. Brandley and Sulentic (2023) conducted their research in the United States of America, Thessin (2023) carried out a study in the Netherlands, and Jiachen and Zhang (2023) conducted their investigation in China. These studies exhibited geographical gaps due to their execution in countries distinct from Kenya's geographic location. As a result, these studies cannot be readily extrapolated to elucidate instructional supervision strategies employed by principals and their impact on students' academic achievements in Kenya.

Numerous studies demonstrated methodological gaps. For instance, Rafael (2023) delved into inhibiting factors in instructional leadership practices in Pakistan using a qualitative approach. Similarly, Ogunode (2023) employed a qualitative method to examine the deployment of instructional materials in Basic schools in Nigeria, focusing on material impact and the factors impeding their effective utilization. In contrast to these studies, the current research employed both qualitative and quantitative methodologies to harness the strengths of each approach.

Theoretical gaps were evident in studies that adopted theories divergent from the one employed in the current study. For instance, Oyier and Amollo (2017) utilized stakeholder theory, whereas the present study distinguishes itself by adopting the Total Quality Management theory. This adoption aims to explore the influence of principals' instructional supervision strategies on students' academic achievements. Furthermore, some studies, although addressing

instructional supervision by principals, overlooked variables such as classroom supervision, the provision of instructional materials, and collaborative planning between principals and teachers. These omissions necessitated the present study to address and rectify these gaps.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the research design, location of the study, target population, sampling techniques, and sample size. It further presents the validity of research instruments, pilot testing of study instruments, reliability of study instruments, data collection procedures, data analysis procedures, and ethical considerations.

#### **3.2 Research Design**

Research design serves as the blueprint for a scientific study, encompassing the research methodologies, tools, and techniques used to conduct the research. Creswell (2018) defined research design as a procedure for collecting, analyzing, interpreting, and reporting data in research. This study employed a Convergent Parallel Mixed Methods Research Design, a one-phase design where both quantitative and qualitative data are collected and analyzed. Convergent Parallel Mixed Methods Research Design is a type of mixed-methods research design used when a researcher wants to combine both qualitative and quantitative research methods to gain a more comprehensive understanding of a research problem (Tesfaye, 2018). This approach involves collecting and analyzing both quantitative and qualitative data concurrently and then comparing the results to draw meaningful conclusions. The researcher used this design to validate or corroborate findings from one method with findings from the other. This helped to ensure the robustness and reliability of the results.

While using quantitative approach, the study adopted a cross-sectional survey design. This helped to collect quantitative data from teachers and students. A cross-sectional survey design is a research method that allows researchers to collect data from a sample of participants

at a specific point in time. In this design, the researcher aimed to gather information about different characteristics or variables of the participants simultaneously. The data collected can provide a cross-section of the population under study, allowing researchers to examine relationships, patterns, or differences among variables of interest. A study by Kothari and Garg (2019) asserted that cross-sectional surveys are usually used because they are efficient in the use of time and resources since data are collected only once. Concerning qualitative data that was collected from principals, the researcher used a case study design. The design enabled the researcher to collect qualitative data through in-depth interview guides. A case study design allowed the researcher to have a comprehensive understanding of the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

### **3.3 Location of the Study**

This study was conducted in Gatanga, a sub county in Murang'a County. The sub county is bordered by Thika Town Constituency to the east, Gatundu North Constituency to the south, Kandara Constituency to the northeast, and Kigumo Constituency to the west. In terms of schools, Gatanga has a number of educational institutions, including primary and secondary schools. Gatanga sub-county has been chosen for the study because the performance of students in public secondary schools, particularly in the Certificate of Secondary Education (KCSE), has consistently been poor (Gathumbi, 2015), which has necessitated this study.

### **3.4. Target Population**

Target population according to Kombo and Tromp (2018) is the large group from which the sample is taken. In the current study, the target population was 48 public secondary schools in Gatanga Sub-County, Muranga, 48 principals, and 380 teachers. The principals were included

in the study because they are the leaders of the schools who supervise all the activities of the school to ensure that there is effective performance of the learners. They are therefore in position to provide data that can enrich the study. Teachers are charged with the responsibility of teaching students and implementing all other practices meant to enhance learners' performance. They are therefore in a position to provide data that is beneficial for the study.

### **3.5. Description of Sample Size and Sampling Procedures**

This study employed both probability and non-probability sampling techniques for quantitative and qualitative approaches, respectively. Specifically, probability sampling technique, particularly stratified simple random sampling, was utilized to select 10 out of 48 which is 21% of the public secondary schools. Similarly, stratified and simple random sampling was used to select 260 out of 380 which is 68% of the teachers from the selected schools. Non-probability sampling involved the use of criterion-purposive sampling to include all 10 principals from the selected schools and the sub-county director of education. The sample size of 21%, 68%, 100%, and 100% for schools, teachers, principals, and the sub-county director of education, respectively, was informed by Mugenda and Mugenda (2013), who argued that a sample size of 10–50% is acceptable.

#### **3.5.1 Sampling of Schools**

The researcher used stratified and simple random sampling to select 10 out of 48 public secondary schools. To achieve this, the researcher obtained the list of all 48 public secondary schools from the TSC office in Gatanga Sub-County. The researcher then stratified the schools into girls' and boys' schools. Afterward, the researcher employed simple random sampling by folding scorecards with the names of the schools, thoroughly mixing them, and placing them in a

box. The researcher then randomly select cards from the box until the required number was reached. The selected schools were considered to take part in the study.

### **3.5.2 Sampling of Principals**

The study used purposive sampling to include all 10 principals from the selected 10 public secondary schools. Purposive sampling was used in this study for principals based on the argument of Kombo and Tromp (2018) that it is appropriate when selecting cases that are rich in information regarding the study at hand. The principals were included in the study because they are the administrators who run the schools on a day-to-day basis. They are very instrumental in ensuring that there is effective performance by learners. Thus, they were able to provide valuable information for the study.

### **3.5.3 Sampling of Teachers**

To select teachers from the sampled schools, the researcher first stratified them in terms of gender. The researcher then used simple random sampling to select teachers from each stratum. Thus, simple random sampling was used to select 260 out of 380 teachers. The researcher used scorecards with the words "1" and "2" in the process of simple random sampling. The score cards were placed in a box, and the researcher picked them at random until the number reached. The teachers with label "1" were considered to take part in the study. The study considered teachers because of their role in the lives of students. They are very important in ensuring the effective performance of students.

### **3.5.4 Sampling of Sub-County Directors**

Gatanga Sub-County has one Sub-County Director of Education, who was included in the study using purposive sampling. Purposive sampling is a strategy whereby specific individuals or events are deliberately chosen to provide crucial information that cannot be obtained from any

other source (Kombo & Tromp, 2018). This method was deemed appropriate as it allows the researcher to select a small number of informative cases that offer in-depth insights into the researcher's area of interest (Elmusharaf, 2016). The inclusion of the Sub-County Director of Education in the study is justified because they serve as government supervisors of schools, ensuring their optimal performance in all aspects, including academics. Thus, the information they provided greatly benefit the study.

**Table 1**

*Sampling Technique, Target Population and Sample Size*

| <b>Category</b>                  | <b>Sampling Technique</b>             | <b>Target Population</b> | <b>Sample Size</b> | <b>Percentage (%)</b> |
|----------------------------------|---------------------------------------|--------------------------|--------------------|-----------------------|
| Principals                       | Criterion purposive Sampling          | 48                       | 10                 | 80                    |
| Teachers                         | Stratified and Simple Random sampling | 380                      | 260                | 68                    |
| Sub-County Director of Education | Criterion purposive Sampling          | 1                        | 1                  | 100                   |
| <b>Total</b>                     |                                       | <b>429</b>               | <b>271</b>         | <b>63</b>             |

### **3.6 Description of the Research Instruments**

Sabirah (2023) defined data collection instruments as devices used to collect data. In the current study, data collection instruments included questionnaires and structured interview guides. The questionnaires were used to collect quantitative data from teachers. Interview guides were used to collect qualitative data from principals and the sub-county director of education. Combining questionnaires and interviews allowed the researcher to gather a more comprehensive set of data. As noted by Creswell (2014), questionnaires are well-suited for collecting structured,

quantitative data from a large sample, while interviews can provide more in-depth, qualitative insights from a smaller group of participants, which in this study were principals and the sub county director of education.

### **3.6.1 Questionnaire for Teachers**

A questionnaire is a list of questions or items used to gather data from respondents about their attitudes, experiences, or opinions. Questionnaires can be used to collect quantitative and/or qualitative information (Bhandari, 2023). The questionnaire for the teachers had both closed-ended and open-ended questions. It had four sections: A, B, C and D. Section A sought information about the demographics of the teachers. Section B sought to find out the extent to which principals' classroom observation strategies influence students' academic achievement. Section C sought information regarding the influence of principals' provision of instructional materials to teachers on students' academic achievement. And Section D sought information about the influence of the principal-teacher collaborative planning strategy on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

### **3.6.3 In-depth Interview Guide for the Principals**

An interview guides were used to collect qualitative data by conducting face-to-face interviews with the principals. The interview guide was divided into two sections. Section A sought information about the demographic information of the principals, which comprised of the level of education and experience. Section B contained questions seeking information regarding principals' classroom observation strategies, the provision of instructional materials, and the principal's collaborative strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

### **3.6. In-depth Interview Guide for the Sub County Director of Education**

An interview guide was also used to collect qualitative data from the sub county director of education of Gatanga Sub-County. The interview guide was also divided into two sections. Section A sought information about the demographic information of the principals, which was comprised of the level of education and experience. Section B contained questions seeking information regarding principals' classroom observation strategies, the provision of instructional materials, and the principal's collaborative strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

#### **3.6.4 Validity of Quantitative Instruments**

Validity refers to the degree to which an instrument measures what it is intended to measure (Kabai, 2019). The author identified types of validity, including face validity, content validity, and construct validity. These validity tests were essential for producing valid research results that contribute to the advancement of knowledge in a field. Thus, in this study, the researcher subjected the instruments to face validity, content validity, and construct validity tests. The extent to which items adequately measure or represent the substance of the attributes that the researcher wishes to test is referred to as content validity (Sajjad, 2021). After constructing the questionnaire, the researcher sought assistance from experts in educational leadership and administration from Tangaza University to validate the research instruments. They were requested to read and determine whether they contained in-depth coverage of the concept being measured. They were expected to scrutinize and give comments. The comments they provided were incorporated into the questionnaire items.

Construct validity is a measure of the degree to which data obtained from instruments accurately reflects the concepts under study (Brown, 2000). To determine construct validity,

experts in research were asked to assist the researcher in critiquing each item constructed by modifying it and giving suggestions, which were incorporated where necessary to obtain valid data. Since this is a mixed-methods study, the researcher used data triangulation, specifically methodological triangulation. According to Henryk (2020), methodological triangulation involves the use of multiple qualitative and quantitative methods to study a phenomenon. In this study, the researcher used results from questionnaires to get data from teachers, and interview guides to get data from principals and the sub county director of education. The use of the two methods helped to gather a richer understanding of the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya.

### **3.6.5 Pilot Testing of the Research Instruments**

Mugenda and Mugenda (2019) define pilot testing as a process of trying out the research tools or instruments, such as questionnaires, before actual use in the field with members of similar populations not included in the main study. The researcher conducted a pilot study to test the research instruments in three of the public secondary schools in Kajiado county, that were not part of the final study. The schools that were used for the pilot study had similar characteristics to the schools that were used in the actual study. The researcher considered 11 teachers and three principals to participate in the pilot study. The selected participants in the pilot testing were asked to comment on the clarity of the items or identify any omissions. The responses of the participants allowed the researcher to identify vague questions, ambiguous statements, or unclear instructions, which were corrected before the actual study.

### **3.6.6 Reliability of Quantitative Instruments**

Mugenda and Mugenda (2013) defined reliability as the extent to which the instrument yields the same results over multiple trials. The current study used Cronbach alpha for internal consistency and reliability. Cronbach alpha was used because it measures reliability from a single administration of the research instrument. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The value of 0.6–0.7 shows an acceptable level of reliability, while 0.8 or greater indicates a very good level. Cronbach alpha was used because it is an appropriate technique for measuring reliability for survey research that has more than two options, such as a Likert scale and open-ended questions (Kothari, 2014). This study realized a reliability coefficient of 0.83 which was considered appropriate.

### **3.6.7 Credibility and Dependability of Qualitative Instruments**

A study by Creswell (2014) argued that credibility ensures that the study reflects the experiences of those being studied and that the results can be trusted. This study ensured the credibility of the qualitative data through triangulation and member checking. Triangulation enabled the researcher to use different methods to answer the same questions. Member checks were also used, as participants were asked to confirm the accuracy of the data collected. In a study conducted by Gigi (2019), it was revealed that study participants tend to appreciate member checks because they give them a chance to verify their statements.

### **3.7 Description of Data Collection Procedure**

The researcher sought approval from the university supervisors. Thereafter, there was acquisition of an introductory letter from the Directorate of Postgraduate Studies and Research at Tangaza University as a basis to apply for the research permit from the National Commission for Science, Technology, and Innovation (NACOSTI). After obtaining the research permit, the

researcher further sought permission from the county director of education to gather data from the sub-county's public secondary schools. The researcher also requested permission from the principals to correct data from teachers. The researcher informed the participants about the intention of the study and asked them to sign the consent form as proof that they were freely willing to participate in the study. The researcher administered questionnaires to teachers to collect quantitative data, while qualitative data was collected by interviewing principals and the sub-county director of education in Gatanga Sub-County, Muranga County.

### **3.8 Description of Data Analysis Procedures**

Data analysis is the process of organizing data into meaningful and useful information that is used to answer research questions (Mvumbi & Ngumbi, 2015). The researcher processed, analyzed, and interpreted the data using both quantitative and qualitative techniques. For quantitative analysis, the responses from the questionnaires were coded to facilitate categorization and recording. The researcher in the process of coding used SPSS version 26, which involved various steps: Variables were identified and labeled according to the research questions, and then numeric values were assigned to categorical variables. Once variables were coded, the researcher entered the data into SPSS. Thereafter, there was data cleaning procedures to detect and correct errors or inconsistencies. This analysis involved generating descriptive statistics such as frequencies and percentages, which were presented in the form of tables, charts, and graphs. To analyze qualitative data, the researcher transcribed and thematically analyzed the interview transcripts to come up with codes, categories, and themes. The presentation of qualitative data was done through narratives and direct quotations.

### **3.9 Ethical Considerations**

Creswell (2014) contends that when conducting a study, the researcher should adhere to a code of ethics. Thus, the researcher in the current study sought a recommendation letter from the Department of Postgraduate Studies at Tangaza University and also sought a research permit from NACOSTI. The researcher further requested permission from the office of the sub-county director of education of Gatanga so as to be allowed to conduct research in the public secondary schools in the area. The study participants were requested to sign a consent form, and the researcher ensured to explain to them that participation in the study is voluntary. Respondents were also told that they have the option of pulling out of the study at any time. The participants were assured of the anonymity of their identities and the confidentiality of the information that was gathered to minimize the risks related to participants feeling evaluated or judged. Anonymity was ensured by using special codes to refer to schools and participants. During the study, the researcher protected the participants' privacy, avoiding disturbance of any kind to participants and accurately communicating the study's intent. The researcher also avoided coercion from the participants and ensured they were respected in the process of carrying out research. Additionally, the researcher avoided exposing the participants to any sort of harm, including physical harm, psychological harm, emotional harm, or any form of embarrassment. The researcher ensured that the results of the study were reported honestly and without bias. The confidentiality of any information provided by the participants was maintained through the use of pseudonyms. The researcher kept the raw data to be destroyed six months after the thesis is submitted. To avoid plagiarism, the researcher acknowledged the sources of information by using the American Psychological Association's (APA) seventh edition.

## CHAPTER FOUR

### PRESENTATION, INTERPRETATION AND DISCUSSION OF THE FINDINGS

#### 4.1 Introduction

This section of the study presents the data presentation, interpretation, and discussion of the findings. It is divided into several parts, including the return rate of the instruments, demographic data, and the presentation, interpretation, and discussion of the findings, which are based on the objectives of the study. The chapter presents the findings in form of graphs and tables.

#### 4.2 Instrument Response Rate

The researcher distributed research instruments to different study participants; questionnaires were distributed to teachers, which helped in the collection of quantitative data. Interview guides were used to collect qualitative data from the sub county director and principals of the schools that were selected for the study. Table 2 presents the response rate of the study participants.

**Table 2**

*The Response Rate of the Study Instruments*

| Participants        | Sampled Participants | Actual Participants | Response Rate (%) |
|---------------------|----------------------|---------------------|-------------------|
| Principals          | 10                   | 9                   | 90%               |
| Teachers            | 260                  | 257                 | 98%               |
| Sub County Director | 1                    | 1                   | 100               |

Source: *Field data, 2024*

The results in Table 2 show that out of 10 sampled principals, 9 were available for interviews, resulting in a 90% response rate. Of the 260 teachers sampled for the study, 257 participated, yielding a 98% response rate. The sub county director was also available for an interview, achieving a 100% response rate. The three teachers who did not return their questionnaires reported being engaged in a conference and therefore had no time to complete and return them. One principal indicated having been occupied with meetings and was thus unavailable for the interview. According to Mugenda and Mugenda (2018), a response rate of 70% is considered adequate for a social science study. Therefore, the response rate in this study was sufficient for the researcher to proceed with data analysis and presentation of the findings.

#### **4.3 Demographic Information of the Study Participants**

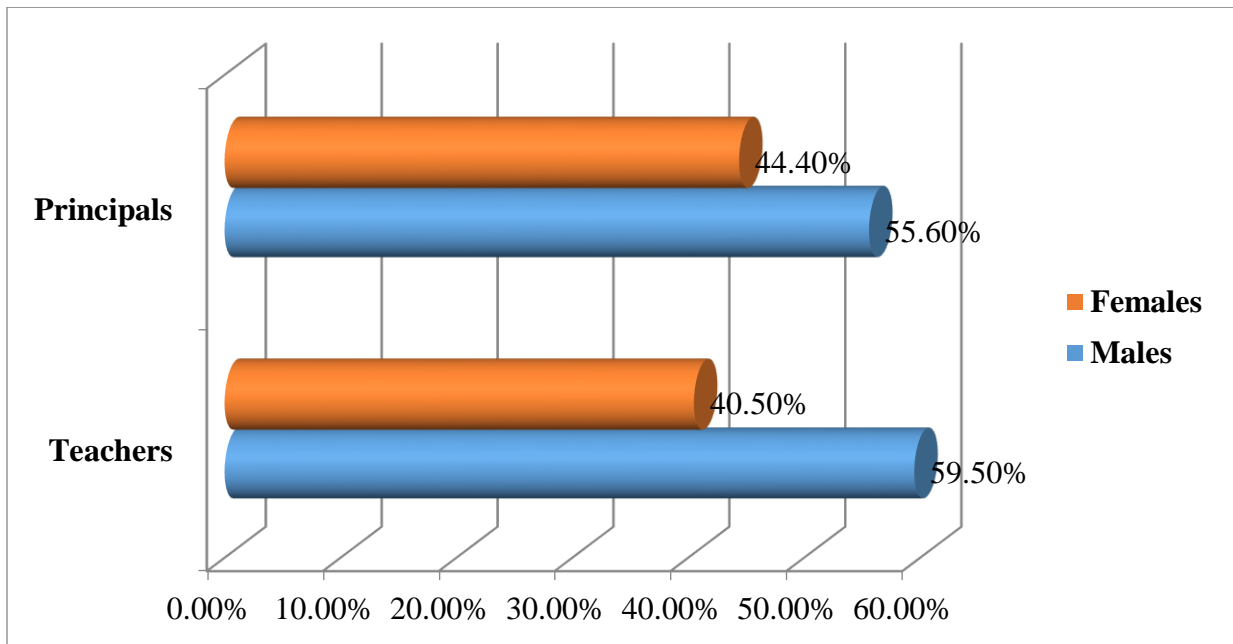
This section presents the distribution of study participants by gender, age, professional qualifications, and years of experience. The importance of demographic data in this research is to gather information from study participants, including principals, teachers, and the sub-county director, to determine whether the personal characteristics of the participants are related to the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-county, Muranga County, Kenya.

##### **4.3.1 Distribution of Study Participants by Gender**

The study sought to find out the gender of the participants in order to establish whether there was a difference between male and female participation in rating the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-county, Muranga County, Kenya. Therefore, the study sought to find out the gender of the principals and teachers, and the findings are presented in Figure 2.

**Figure 2**

*Distribution of Gender of the `Study Participants*



**Source: Field data, 2024**

As demonstrated in Figure 2, most of the principals (55.6%) in public secondary schools in Gitanga Sub County were males. There were only 44.4% female principals. In addition, more than half of the teachers (59.5%) were males. This study shows that though male participants were more than females, both genders were represented in the study. Balancing gender representation among teachers and principals is crucial for the academic success of learners because it creates a more inclusive and equitable learning environment. Diverse role models help break down gender stereotypes, offering students a broader perspective on leadership and career possibilities. When students see both genders in authoritative and supportive roles, it fosters a more balanced and respectful school culture, which can enhance their motivation and engagement. As Connel (2020) argues, balanced gender representation can contribute to diverse perspectives among educators, which can lead to more comprehensive and empathetic teaching

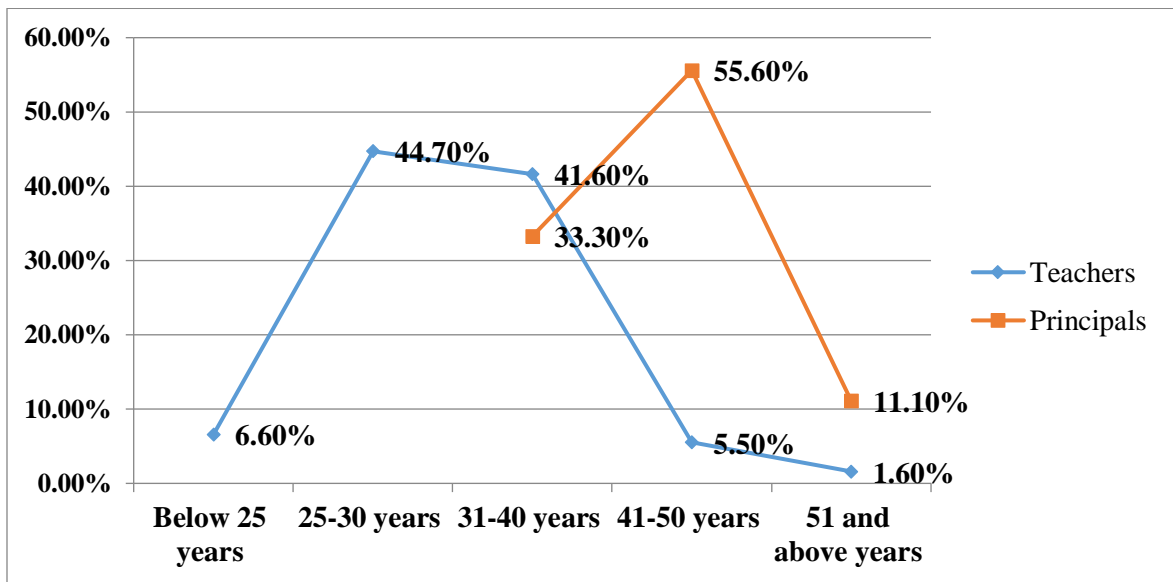
practices, ultimately benefiting all students by catering to varied learning needs and promoting a richer educational experience.

### 4.3.2 Distribution of the Study Participants by Age

This study sought to find out the age range of the principals and teachers to find out whether age had an influence on how principals’ instructional supervision strategies influence students’ academic achievement in public secondary schools in Gatanga Sub-county, Muranga county, Kenya. The study findings are presented in Figure 3.

**Figure 3**

*Distribution of the Participants by Age*



**Source: Field data, 2024**

Figure 3 shows that most of the teachers (44.70%) were in the age bracket between 25 and 30 years. From the study, the researcher found out that most of the principals were between 41-50 years old. These results indicate that most principals are slightly older than the teachers. Having principals who are older than teachers can be important for instructional supervision and students' academic achievement. The maturity and extensive experience of principals can

enhance their ability to mentor and guide teachers effectively, leading to improved instructional practices. Haglund (2022) contended that older principals are likely to have a deeper understanding of curriculum development, classroom management, and educational leadership, which can positively impact teachers' performance and, consequently, students' academic outcomes. Their experience allows them to implement more effective supervision strategies, address challenges with greater insight, and foster a more supportive environment for both teachers and students, ultimately contributing to higher academic achievement.

#### 4.3.3 Distribution of Principals and Teachers according to Academic Qualifications

The study sought to find out the academic qualifications of the principals and teachers to find out whether principals and teachers had the required qualifications as educators in public secondary schools in Gatanga Sub-county, Muranga County, Kenya. The researcher also hoped that principals with advanced degrees and specialized training are better equipped with the knowledge of best practices, instructional strategies, and leadership skills necessary for guiding teachers and enhancing school performance. Table 3 shows the findings.

**Table 3**

#### *Distribution of Principals and Teachers according to Academic Qualifications*

|                   | Principals(n=9) |             | Teachers(n=257) |             |
|-------------------|-----------------|-------------|-----------------|-------------|
|                   | Frequencies     | Percentages | Frequencies     | Percentages |
| Diploma           | 0               | 0.0         | 7               | 2.7         |
| Bachelor's degree | 7               | 77.8        | 246             | 95.7        |
| Master's degree   | 2               | 22.2        | 4               | 1.6         |

**Source: Field data, 2024**

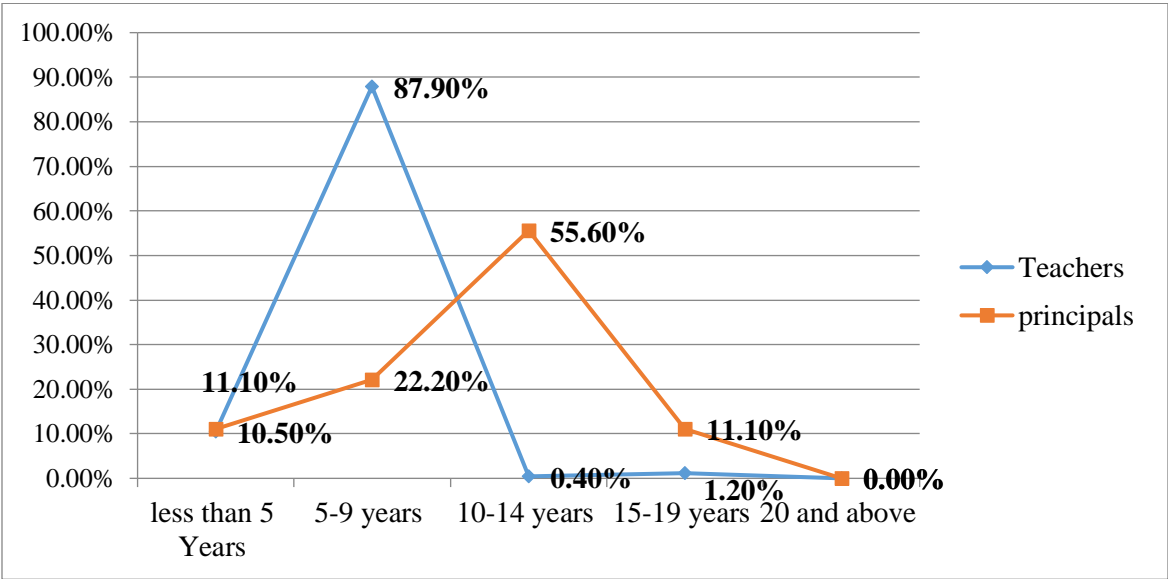
Table 3 shows that most of the teachers (95.7%) had bachelor's degree qualifications, 2.7% had masters, and 1.6% had diploma qualifications. These results clearly show that the most

of teachers and principals attained the minimum qualification as educators in secondary schools in Kenya. Higher education levels of principals can deepen their understanding of curriculum development, assessment, and pedagogical methods, enabling them to provide more informed and constructive feedback to teachers. This, in turn, helps create a more supportive and effective learning environment, ultimately leading to improved teaching quality and better academic outcomes for students. As mentioned by Haglund (2022), qualified educators bring a deep understanding of pedagogical principles, curriculum design, and assessment strategies, which are important for enhancing teaching and learning.

**4.3.4 Distribution of Principals and Teachers according to Experience**

The study found out the principals' and teachers' years of experience in order to establish whether they had attained more knowledge and skills over the period of their service in schools. Figure 4 shows the findings.

**Figure 4**  
*Distribution of Principals and Teachers according to Experience*



Source: Field Data, 2024

Figure 4 shows that slightly more than half of the principals (55.6%) have been in the leadership position for 10-14 years. The majority of the teachers (87.9%) have been in the teaching profession for 5-9 years. These findings suggest that most teachers and principals in public secondary schools in Gatanga Sub-county, Muranga County have attained sufficient experience to effectively guide the learners to effectively perform in academics. Experienced principals possess a deeper understanding of effective teaching methods, classroom dynamics, and school management. Norman (2020) argued that the extensive background of experienced principals allows them to develop and implement well-informed supervision strategies that support teachers' professional growth and address instructional challenges more adeptly. This expertise leads to more targeted and constructive feedback, improved teaching practices, and a better learning environment. Consequently, students benefit from enhanced instruction and support, which positively impacts their academic performance and overall achievement.

#### **4.4 Principals' Classroom Observation Strategies and Students' Academic Achievement**

The first question of this study sought to determine the extent to which principals' classroom observation strategies influence students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County. The teachers were requested to choose the response that best represented their opinions on a five-point scale. The rating scale was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 4 presents the findings.

**Table 4*****Principals' Classroom Observation Strategies and Students' Academic Achievement (N=257)***

| Statement                                                                                                                                                    | SA  |      | A  |      | UD |      | D   |      | SD  |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|----|------|----|------|-----|------|-----|------|
|                                                                                                                                                              | f   | %    | f  | %    | f  | %    | f   | %    | F   | %    |
| The feedback from principals' classroom observations is constructive and helps me enhance my teaching methods, which helps to improve students' performance. | 66  | 25.7 | 2  | 0.8  | 3  | 1.2  | 90  | 35.0 | 96  | 37.4 |
| I feel my lesson presentations and management have improved as a result of feedback received from classroom observations by the principal.                   | 5   | 1.9  | 60 | 23.3 | 3  | 1.2  | 26  | 10.1 | 163 | 63.4 |
| Classroom observations are a fair reflection of my teaching performance.                                                                                     | 135 | 53.3 | 00 | 00   | 36 | 14.0 | 72  | 28.0 | 12  | 4.7  |
| Our principal observes teachers' mastery of content, syllabus coverage, and lesson notes, which has improved learners' performance.                          | 49  | 19.1 | 7  | 2.7  | 00 | 00   | 194 | 75.5 | 7   | 2.7  |
| The classroom observation process contributes to the overall improvement of students' academic outcomes.                                                     | 136 | 52.9 | 94 | 36.6 | 14 | 5.4  | 11  | 4.3  | 2   | 0.8  |

**Source: Field Data, 2024**

Table 4 shows that most teachers (72.4%) disagreed with the notion that feedback from principals' classroom observations is constructive and helps them enhance their teaching methods, which in turn improves student performance. Only 1.2% of the teachers were undecided. These results point to a significant disconnect between principals' instructional supervision strategies and teachers' perceptions of their effectiveness, suggesting concerns about the quality or utility of the feedback provided. This negative perception implies that current supervisory practices may not adequately support teachers in improving their skills, potentially

hindering student performance due to ineffective feedback that fails to address teaching deficiencies. The minimal undecided percentage (1.2%) highlights the widespread dissatisfaction. These results contradict the findings of one principal who argued that:

I make an effort to provide feedback to teachers every time I observe their class because I understand the benefits of constructive feedback. Feedback from principals' classroom observations can be highly beneficial to teachers by offering targeted insights into their instructional practices. Constructive feedback helps identify strengths and areas for improvement, allowing teachers to refine their teaching strategies and address any weaknesses (Principal A, 20/07/2024).

Another principal also narrated:

Providing constructive feedback not only supports professional growth but also fosters a reflective teaching practice, enabling teachers to adapt and enhance their methods. As teachers implement these improvements, they can create a more effective learning environment, ultimately leading to better student engagement and academic performance (Principal B, 20/07/2024).

These findings suggest that personalized guidance from principals plays a crucial role in enhancing overall educational quality by improving students' performance. As Martinez (2016) argued, principals' classroom observations provide firsthand insight into instructional dynamics and the classroom environment. Such visits allow principals to assess the effectiveness of teaching methods, student engagement, and classroom management in real-time. By witnessing these aspects directly, principals can offer more specific and actionable feedback, tailor professional development to address observed needs, and support teachers in implementing best practices that enhance student achievement.

The majority of the teachers (63.4%) disagreed that they feel their lesson presentations and management have improved as a result of feedback received from classroom observations by the principal. There were 23.3% of the teachers who agreed and 1.2% who were undecided about the idea. One of the principals had this to say:

As a principal, I have noted that some teachers, despite receiving feedback about their teaching, do not implement it because they lack sufficient resources to address the suggestions and face a heavy workload. These factors further impede their ability to make the recommended changes in their teaching (Principal C, 20/07/2024).

These findings suggest that principals' supervision and feedback in schools are not helping teachers to enhance teaching and learning. It must be acknowledged that if lesson presentations and classroom management by teachers are not up to standard, students' learning can be significantly compromised. Ineffective lesson presentations may lead to unclear or disorganized instruction, causing confusion and disengagement among students. Poor classroom management can result in a chaotic learning environment where disruptions hinder students' ability to focus and participate. Both issues can negatively impact student understanding and retention of material, reduce motivation, and ultimately lead to lower academic performance. In line with these arguments, literature, particularly a study by Natalie (2023), reveals that a lack of effective teaching and classroom control undermines the learning experience, making it challenging for students to achieve their full potential and succeed academically.

Slightly more than half of the teachers (53.3%) were in agreement that classroom observations are a fair reflection of their teaching performance. Only 14% of the teachers were undecided about the matter. In line with these findings, the sub county director asserted, "Principals in our schools make an effort to supervise and provide realistic feedback to teachers

to enhance their performance.” It can thus be said that these findings suggest that principals’ instructional supervision strategies are perceived as reasonably effective by a majority of teachers. This indicates that the observation process is seen as a credible measure of teaching effectiveness by over half of the teachers. However, the fact that 14% of teachers remain undecided suggests some level of uncertainty or skepticism about the fairness or accuracy of these evaluations. In an interview, one of the principals commented, “I ensure that my classroom observations are accompanied by a collaborative dialogue with any teacher I observe. I also make sure that feedback is supportive rather than punitive.” These findings align with the argument of the sub county director, who contended that “consistency and fairness of the principals in teacher, along with timely follow-ups to monitor progress, contribute to the effectiveness of classroom observations and enhance teaching and learning.” A study by Ahmad (2021) noted that, while supervising teachers, principals should ensure effective classroom observations, which are characterized by several key components, including providing high-quality, realistic feedback that is specific, actionable, and relevant to the teacher's instructional practice.

The was a disagreement from most of the teachers (75.5%) regarding whether their principals observe teachers’ mastery of content, syllabus coverage, and lesson notes to improve learners’ performance. These findings contradict the findings from one of the principals, who mentioned that teachers are regularly observed during teaching and that students' notes are also checked. These findings suggest that the effectiveness of principals’ instructional supervision strategies may be in question. Based on the findings from teachers, it appears that there is a significant gap in the perceived focus and thoroughness of supervisory practices. This disconnect implies that principals might not be fully addressing key elements that influence teaching quality

and student outcomes. Consequently, the lack of attention to these crucial areas could undermine the overall effectiveness of instructional supervision and its impact on enhancing students' achievement.

In an interview, the sub county director narrated:

I normally encourage principals to observe teachers regarding mastery of content, syllabus coverage and other aspects of the curriculum to ensure learners effectively benefit academically. I know if there is no effective supervision, teachers may not receive crucial feedback needed to address gaps in their knowledge or instructional practices, leading to deficiencies in teaching quality (Sub county director, 20/07/2024).

One of the principals also remarked:

Without proper supervision, inconsistencies in syllabus coverage and lesson planning may arise, which may affect students' learning experiences and academic performance. The lack of oversight can also result in missed opportunities for professional development and support, diminishing the effectiveness of teaching and hindering overall student achievement (Principal D, 20/07/2024).

Literature supports these findings regarding the observation of teachers' mastery of content, syllabus coverage, and lesson notes. For example, Kraft (2016) argued that teacher observations should focus on clear criteria aligned with educational goals and provide constructive suggestions for improvement. Additionally, Kraft's study noted that the quality of feedback teachers receive through the supervision and evaluation process depends critically on the time and training evaluators have to offer individualized and actionable feedback.

Table 4 further shows that slightly more than half of the teachers (52.9%) agreed that classroom observation process contributes to the overall improvement of students' academic

outcomes. Only 0.8% of the teachers strongly disagreed with the idea. In an interview, one of the principals supported these findings, stating that:

Through classroom observation, principals identify strengths and areas for development in teachers' instructional methods, content delivery, and engagement strategies.

Constructive feedback based on these observations helps teachers refine their approaches, address learning gaps, and adapt their strategies to better meet students' needs. This ongoing process of reflection and adjustment enhances teaching effectiveness, which directly benefits students by fostering a more supportive and effective learning environment (Principal E, 20/07/2024).

These findings indicate that teachers recognize the beneficial impact of supervision and observation on their teaching and learning. Related findings were highlighted in the literature, particularly a study by Laska (2016) which noted that observing teachers while they teach helps them refine their instructional strategies, leading to improved teaching performance. This, in turn, enhances student learning outcomes, as effective teaching practices are directly linked to better student performance.

#### **4.5 Principals' Provision of Instructional Materials to Teachers on Students' Academic Achievement**

The second question of this study sought to find out the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County. The teachers were requested to choose the response that best represented their opinions on a five-point scale. The rating scale was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 5 presents the findings.

**Table 5*****Principals' Provision of Instructional Materials to Teachers on Students' Academic******Achievement (N=257)***

| Statement                                                                                                                                                                 | SA  |      | A  |      | UD |      | D   |      | SD  |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|----|------|----|------|-----|------|-----|------|
|                                                                                                                                                                           | F   | %    | f  | %    | f  | %    | f   | %    | F   | %    |
| The instructional materials such as text books and reference books provided by the principal are relevant to my teaching needs and help improve student performance.      | 180 | 70.0 | 00 | 00   | 43 | 16.7 | 13  | 5.1  | 8   | 3.1  |
| The availability of instructional materials from the principal has a positive impact on my teaching effectiveness, which results in improved students' performance.       | 141 | 54.9 | 58 | 22.6 | 14 | 5.4  | 2   | 0.8  | 42  | 16.3 |
| The instructional materials provided by the principal such as worksheets, charts, graph are up-to-date, which has often helped to improve student performance.            | 56  | 21.8 | 12 | 4.7  | 6  | 2.3  | 165 | 64.2 | 18  | 7.0  |
| The principal's support in providing instructional materials enhances my ability to meet the diverse learning needs of my students, which has improved their performance. | 31  | 12.1 | 00 | 00   | 4  | 1.6  | 152 | 59.1 | 65  | 25.3 |
| I feel well supported by the principal in terms of instructional materials to enhance student learning and performance.                                                   | 6   | 2.3  | 1  | 0.4  | 3  | 1.2  | 2   | 0.8  | 245 | 95.3 |

**Source: Field data, 2024**

Table 5 reveals that 70% of teachers strongly agree that the instructional materials, including textbooks and reference books, are relevant to their teaching needs and contribute to improved student performance. This high level of agreement underscores the importance of

principals providing suitable instructional materials, as they play a crucial role in enhancing teaching effectiveness and, consequently, student academic achievement. The 16.6% of teachers who disagreed and the 5.1% who were undecided suggest that there are still areas for improvement in the selection and distribution of these resources. Regarding these findings, one of the principals commented:

The proper allocation textbooks and reference books significantly enhances student performance by ensuring that learners have access to accurate, comprehensive, and up-to-date information necessary for their studies. These materials support structured learning and provide essential content that aligns with the curriculum, facilitating better understanding and retention of key concepts. Well-chosen textbooks and reference books also offer diverse perspectives and practice opportunities, catering to different learning styles and needs (Principal F, 20/07/2024).

The sub county director also commented that, “resources such as textbooks help students grasp complex topics more effectively, ultimately leading to improved academic performance and a deeper mastery of subject matter by the students.” These findings show that school principals are making an effort to ensure that teachers have the relevant resources, such as textbooks, to use in teaching, which is essential for enhancing student performance. A study by Ochieng and Kibett (2017) also underscored the significant impact of instructional resources on the acquisition of knowledge and skills among students pursuing diverse careers.

Slightly more than half of the teachers (54.9%) agreed that the availability of instructional materials from the principal has a positive impact on my teaching effectiveness, which results in improved students' performance. In line with these findings, the sub county director had this to say:

We prioritize the availability of instructional materials in our school because we know they help to enhance teaching effectiveness. By providing teachers with essential resources, we support and enrich the learning process. These materials, including textbooks, multimedia resources, and interactive tools, enable teachers to present content more clearly and engagingly, catering to various learning styles and needs (Sub county director, 20/07/2024).

One of the principals also added:

Instructional materials such as textbooks, multimedia resources, and digital resources such as computers help teachers design more effective lesson plans and facilitate deeper understanding of the subject matter. This not only makes lessons more engaging and accessible but also allows teachers to implement diverse instructional strategies, ultimately improving student comprehension, retention, and overall academic performance (Principal F, 20/07/2024).

The study further revealed a disagreement from most of the teachers (64.2%) that the instructional materials provided by the principals, such as worksheets, charts, and graphs, are up-to-date and have often helped to improve student performance. It must be noted that when instructional materials are not up-to-date, teaching and learning can suffer significantly.

Outdated materials may contain obsolete information, fail to align with current curriculum standards, or lack relevance to contemporary issues, which can hinder students' understanding of current concepts and practices. Teachers may struggle to provide accurate, engaging content, leading to gaps in students' knowledge and reduced engagement. As noted by one of the principals, “outdated resources can undermine the effectiveness of teaching methods, making it difficult for teachers to address evolving educational needs and technological advancements.”

The study findings further revealed that 84.4% of teachers disagreed with the notion that the principal's support in providing instructional materials enhances their ability to meet the diverse learning needs of their students. This significant level of disagreement suggests a disconnect between the provision of resources and their perceived effectiveness in addressing varied student needs. It may indicate that despite the availability of materials, other factors such as the relevance, quality, or adequacy of these resources, or perhaps the level of support and training provided to teachers, might not be sufficiently aligned with the actual demands of diverse classrooms.

The findings indicate that 95.3% of teachers strongly disagreed with the idea that they feel well-supported by principals in terms of instructional materials to enhance student learning and performance. This overwhelming majority suggests a widespread perception among teachers that the support they receive is inadequate, which could imply that principals are not sufficiently providing or prioritizing the necessary resources to effectively address teaching needs. The 1.2% of teachers who were undecided further highlights the uncertainty or variability in experiences regarding support, reinforcing the need for a more systematic and responsive approach to equipping teachers with the tools they need to improve student outcomes.

These findings contradict the results from the interviews. For example, the sub-county director commented:

School principals in our schools work hard to enhance students' learning and performance by ensuring availability of a range of instructional materials tailored to diverse students' needs. These include up-to-date textbooks and reference books that align with the curriculum, digital resources such as educational software and online learning platforms that facilitate dynamic teaching. They also ensure availability of

supplementary materials such as workbooks and educational kits for hands-on learning (Sub county director, 20/07/2024).

One of the principals also had this to say:

I ensure teachers have access to relevant teaching resources because I know a variety of resources helps to supports varied teaching methods, addresses different learning styles, and ensures that lessons are engaging and informative, ultimately fostering a more effective and enriching educational experience for students (Principals G, 20/07/2024).

These findings highlight the significance of educational resources in teaching and learning, as well as their impact on student performance in schools. A related study by Mike, Bruce, and Huntly (2010) examined the role of textbooks and online learning resources in Australian schools. The study revealed that both students and teachers need effective access to and utilization of textbooks and online resources. Such access and utilization are crucial for enhancing teaching and learning, which in turn improves student learning outcomes.

#### **4.6 Principal-Teacher Collaborative Planning Strategy and Students' Academic Achievement (N=257)**

The third question of this study sought to determine how the principal-teacher collaborative planning strategy influences students' academic achievement in public secondary schools in Gatanga Sub-County, Murang'a County. The participants were requested to choose the response that best represented their opinions on a five-point scale. The rating scale was: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD). Table 6 presents the findings.

#### **Table 6**

***Principal-Teacher Collaborative Planning Strategy and Students' Academic Achievement (N=257)***

| Statement                                                                                                                     | SA  |      | A   |      | UD |     | D  |      | SD |      |
|-------------------------------------------------------------------------------------------------------------------------------|-----|------|-----|------|----|-----|----|------|----|------|
|                                                                                                                               | f   | %    | F   | %    | F  | %   | f  | %    | F  | %    |
| Our principal regularly meets with teachers to discuss students' academic improvement strategies.                             | 164 | 63.8 | 47  | 18.3 | 7  | 2.7 | 12 | 4.7  | 27 | 10.5 |
| Our principal works with teachers to analyse results and identify areas among learners that need improvement.                 | 131 | 51.0 | 101 | 39.3 | 13 | 5.1 | 10 | 3.9  | 2  | 0.8  |
| Principal-teacher collaboration enhances teachers' commitment, which improves students' performance.                          | 199 | 77.4 | 15  | 5.8  | 1  | 0.4 | 42 | 16.3 | 00 | 00   |
| Principal-teacher collaboration facilitates the sharing of innovative teaching approaches that improve students' performance. | 143 | 55.6 | 58  | 22.6 | 14 | 5.4 | 2  | 0.8  | 40 | 15.6 |
| The principal and the teachers discuss students' performance.                                                                 | 109 | 42.4 | 83  | 32.3 | 4  | 1.6 | 21 | 8.2  | 40 | 15.6 |

**Source: Field Data, 2024**

Table 6 reveals that a significant majority of teachers (63.8%) believe that their principals regularly engage with them to discuss strategies for improving students' academic performance, suggesting a strong implementation of the principal-teacher collaborative planning strategy. This high percentage indicates a positive alignment with collaborative practices, which are crucial for fostering effective educational strategies and enhancing student outcomes. However, a minority of teachers (10.5%) strongly disagreed with this view, and 2.7% remained undecided, highlighting potential gaps or inconsistencies in the collaborative efforts. These findings were supported by comments from principals during interviews. For example, one principal remarked:

I find it crucial to collaboratively discuss with teachers the strategies for improving students' academic performance because this partnership fosters a unified approach to addressing educational challenges and implementing effective solutions. By working together, I find myself gaining insights into classroom dynamics and specific student needs from teachers, while teachers benefit from the strategic vision and support I provide (Principal G, 20/07/2024).

The sub county director also narrated:

Whenever I have the opportunity to speak with school principals, I encourage them to embrace collaboration and discuss strategies that can help improve student performance. I know that this collaboration ensures that strategies are both practically relevant and aligned with broader school goals, leading to more targeted and impactful interventions. Moreover, it enhances communication and trust within the school, promotes shared accountability, and encourages a collective commitment to student success, all of which contribute to a more supportive and effective learning environment (Sub county director, 20/07/2024).

These findings underscore the importance of consistent and effective collaboration between principals and teachers; as such interactions are likely to play a pivotal role in boosting students' academic achievement. These findings are supported by a study conducted in the United States by Brandley and Sulentic (2023), which argued that collaboration between principals and teachers is central to school improvement and students' academic success.

The finding that 51.0% of teachers agree that their principals collaborate with them to analyze results and identify areas for improvement highlights a partial yet positive engagement with the principal-teacher collaborative planning strategy. This level of collaboration is crucial,

as it can lead to more targeted instructional strategies and improved student outcomes. However, the fact that 5.1% of teachers remain undecided suggests that the effectiveness of this collaboration may be inconsistent or unclear to some. To fully leverage the benefits of collaborative planning and enhance students' academic achievement, it is important for principals to address any uncertainties and ensure that all teachers are actively involved in decision-making processes. In the interview, one of the principals commented, "I normally join teachers to analyze students' performance and design strategies for helping learners who need extra help." These findings clearly demonstrate that school principals are involved in ensuring the effective performance of learners in schools.

Regarding whether principal-teacher collaboration enhances teachers' commitment, most of the teachers agreed with the idea. Only 16.3% of the teachers disagreed with the idea. These findings align with the argument of the sub county directors, who stated:

Principal-teacher collaboration fosters a supportive and inclusive work environment.

When principals actively involve teachers in decision-making, it builds trust and respect, making teachers feel valued and heard. Collaborative efforts in setting goals, sharing strategies, and addressing challenges create a shared sense of purpose and ownership.

This involvement can boost teachers' motivation and engagement, as they see their input shaping the school's direction (Sub county director, 21/07/2024).

One of the principals also narrated:

Principal-teacher collaboration allows for regular communication and feedback from principals, which helps address concerns and provides professional growth opportunities for teachers. Ultimately, this partnership strengthens teachers' dedication to their roles and enhances student achievement (Principal H, 21/07/2024).

These findings highlight the beneficial role of principals in creating a collaborative environment that fosters learning in a school setting. These findings are consistent with research studies such as Marshall (2021), who emphasized that school principals must prioritize teacher collaboration by providing professional development and support for professional learning communities. Bayler et al. (2015) claim that principals, as instructional leaders, must create collaborative cultures in schools to enhance learners' success.

The findings of the study that 55.6% of teachers agreed that principal-teacher collaboration facilitates the sharing of innovative teaching approaches underscores the positive impact such collaboration can have on educational outcomes. This significant proportion suggests that when principals and teachers work together, they are more likely to exchange effective teaching strategies, leading to improved student performance. The fact that just over half of the teachers recognize this benefit highlights the importance of fostering strong partnerships within schools. However, it also suggests that there is room for growth in ensuring that all teachers fully experience and value the advantages of collaborative practices. In support of these findings, one of the principals argued, "In my school, we work together as a team to ensure students excel in academics." This sentiment was further echoed by the sub county director, who stated, "I am a strong supporter of teamwork and encourage teachers and principals to embrace it. I know that when teachers and principals work together as a team, student success is highly likely." The reviewed literature supports these findings. For example, a study by Newman (2019) stated that teachers need team collaboration opportunities to enhance their skills and connect with colleagues.

The finding that 74.7% of teachers agree that principals and teachers discuss students' performance highlights a crucial element in improving educational outcomes. Regular discussions between principals and teachers about student performance enable timely identification of challenges and the implementation of targeted interventions. This collaborative approach allows for the sharing of insights and strategies to address individual student needs, ultimately contributing to enhanced academic performance. When principals and teachers engage in these discussions, they can more effectively align their efforts and resources to support students, thereby fostering an environment where students are more likely to succeed.

In support of these findings, the county director stated:

I encourage principals and teachers to always discuss students' performance to collaboratively identify and address academic challenges. Such discussions ensure that interventions are timely and effective. Such dialogue allows for the alignment of teaching strategies and resources, which supports targeted student development and overall improvement in academic outcomes (Sub county Director, 22/07/2024).

These findings support the notion that principal-teacher collaboration is crucial for achieving effective student performance. The findings also align with the research of Perpetua (2023), who explored educational leadership practices that sustain school improvement in selected secondary schools in Tanzania. Perpetua revealed that in the best-performing schools, leaders demonstrated the ability to collaborate with teachers to establish best practices that lead to improved student achievement.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary of findings as well as the conclusions and recommendations of the study. The chapter further presents the suggestions for further studies.

#### 5.2 Summary of the Findings

The main objective of this study was to find out the influence of principals' instructional supervision strategies on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County, Kenya. To achieve this, the study used the three questions to summarize the findings.

Regarding the first question, the study revealed that most teachers disagreed with the notion that feedback from principals' classroom observations is constructive and helps them enhance their teaching methods, which suggests concerns about the quality or utility of the feedback provided. The study also found out that the majority of the participants disagreed that they feel their lesson presentations and management have improved as a result of feedback received from classroom observations by the principal. Slightly more than half of the teachers were in agreement that classroom observations are a fair reflection of their teaching performance. There was a disagreement from most of the teachers regarding whether their principals observe teachers' mastery of content, syllabus coverage, and lesson notes to improve learners' performance. Further findings showed that slightly more than half of the teachers (52.9%) agreed that the classroom observation process contributes to the overall improvement of students' academic outcomes.

The second question of this study sought to find out the influence of principals' provision of instructional materials to teachers on students' academic achievement in public secondary schools in Gatanga Sub-County, Muranga County. Under this question, it was found out that the majority of the teachers strongly agree that the instructional materials, including textbooks and reference books, are relevant to their teaching needs and contribute to improved student performance. This high level of agreement underscores the importance of principals providing suitable instructional materials, as they play a crucial role in enhancing teaching effectiveness and, consequently, student academic achievement. Most of the teachers agreed that the availability of instructional materials from the principal has a positive impact on my teaching effectiveness, which results in improved students' performance.

The study revealed a disagreement from most of the teachers that the instructional materials provided by the principals, such as worksheets, charts, and graphs, are up-to-date and have often helped to improve student performance. The study findings further revealed that 84.4% of teachers disagreed with the notion that the principal's support in providing instructional materials enhances their ability to meet the diverse learning needs of their students. The findings indicate that the majority of the participants strongly disagreed with the idea that they feel well-supported by principals in terms of instructional materials to enhance student learning and performance. This overwhelming majority suggests a widespread perception among teachers that the support they receive is inadequate, which could imply that principals are not sufficiently providing or prioritizing the necessary resources to effectively address teaching needs.

The third question of this study sought to determine how the principal-teacher collaborative planning strategy influences students' academic achievement in public secondary schools in Gatanga Sub-County, Murang'a County. Regarding this question, the study found out

that a significant majority of participants believed that their principals regularly engage with them to discuss strategies for improving students' academic performance, suggesting a strong implementation of the principal-teacher collaborative planning strategy. The findings revealed that slightly more than half of the teachers agreed that their principals collaborate with them to analyze results and identify areas for improvement, which heightened a partial yet positive engagement with the Principal-Teacher Collaborative Planning Strategy.

It was further revealed that most teachers agreed that principal-teacher collaboration facilitates the sharing of innovative teaching approaches, which underscores the positive impact such collaboration can have on educational outcomes. This significant proportion suggests that when principals and teachers work together, they are more likely to exchange effective teaching strategies, leading to improved student performance. The finding indicated that the majority of the teachers agreed that principals and teachers discuss students' performance, which highlighted a crucial element in improving educational outcomes. These findings support the notion that principal-teacher collaboration is crucial for achieving effective student performance.

### **5.3 Conclusions of the Study**

Based on its findings, this study drew several conclusions. Firstly, regarding the extent to which principals' classroom observation strategies influence students' academic achievement, the study concluded that feedback from principals' classroom observations is not effectively helping teachers enhance their teaching methods. Additionally, it was concluded that the feedback received from classroom observations of principals has not led to improvements in teachers' lesson presentations or class management. The study further concluded that school principals do not effectively observe teachers' mastery of content, syllabus coverage, and lesson notes to improve student performance.

Regarding the second question of the study, it was concluded that the instructional materials provided by principals, such as worksheets, charts, and graphs, are not up-to-date and have not significantly improved student performance. Additionally, it was concluded that the principal's support in providing instructional materials does not enhance teachers' ability to meet the diverse learning needs of their students. Participants generally disagreed with the notion that they feel well-supported by principals in terms of instructional materials to enhance student learning and performance.

In light of the third question, which sought to determine how the principal-teacher collaborative planning strategy influences students' academic achievement, it was concluded that principals regularly engage with teachers to discuss strategies for improving students' academic performance. Principals collaborate with teachers to analyze results and identify areas for improvement. Additionally, it was concluded that principal-teacher collaboration facilitates the sharing of innovative teaching approaches; highlighting the positive impact such collaboration can have on educational outcomes. The study also concluded that discussions between principals and teachers about students' performance contribute to improved academic achievement.

#### **5.4 Recommendations of the Study**

The recommendations in the current study were presented in sections including recommendations for practice, recommendations for the policy, and recommendations for further research.

##### **5.4.1 Recommendations for Practice**

Based on the findings regarding the effectiveness of principals' classroom observation strategies, it is recommended that principals enhance the quality and utility of their feedback to teachers. Principals should provide more detailed, actionable feedback that focuses on specific

areas for improvement in teaching methods, lesson presentations, and class management. This can be achieved by incorporating regular, structured observation protocols and using evidence-based criteria to assess teaching practices. Principals should also engage in follow-up discussions with teachers to ensure that feedback is understood and to support the implementation of suggested improvements. Providing professional development opportunities focused on effective observation and feedback techniques can further enhance principals' ability to support teachers' growth.

Additionally, it is crucial for principals to refine their observation practices to more effectively assess teachers' mastery of content, syllabus coverage, and lesson notes. This can be accomplished by developing clear rubrics and checklists that align with curriculum standards and student learning objectives. Principals should also consider involving teachers in the observation process to foster a collaborative approach to evaluating and improving instructional practices. By adopting a more comprehensive and supportive observation framework, principals can better identify areas where teachers need assistance and implement strategies that contribute to improved students' performance.

To address the findings regarding the lack of effective support from principals in providing instructional materials, the study recommended that principals conduct a thorough assessment of the specific instructional materials needed by teachers to meet diverse student learning needs. Principals should engage in open dialogue with teachers to understand their material requirements and ensure that resources provided are up-to-date and aligned with current educational standards. Additionally, principals should prioritize regular reviews and updates of instructional materials and consider involving teachers in the selection process to better support their teaching strategies. Enhancing communication and collaboration in this area may help

ensure that the materials provided are relevant and effectively support improved student learning and performance.

#### **5.4.2 Recommendations for policy**

Based on the findings, the study recommended that the government should consider implementing policies that mandate comprehensive training programs for school principals focused on effective classroom observation and feedback techniques. These programs should emphasize the development of skills for providing constructive, actionable feedback and assessing teachers' mastery of content and instructional practices. Additionally, the government could establish standardized guidelines and tools for classroom observations to ensure consistency and effectiveness in evaluating teaching quality. Regular evaluations of principals' observation practices and feedback effectiveness should also be integrated into performance reviews to ensure ongoing improvement and support for enhancing student academic achievement.

In response to the findings, the government should develop and implement policies that ensure principals are equipped to effectively support teachers with instructional materials. This could involve allocating dedicated funds for the regular updating and acquisition of relevant instructional resources, as well as creating a framework for principals to assess and address the specific material needs of their schools. Additionally, policies should mandate that principals receive training on how to effectively support teachers with resource provision and facilitate collaboration with educators to identify and meet diverse learning needs. Regular audits and feedback mechanisms should be established to monitor the adequacy of instructional material support and ensure it aligns with the goal of enhancing student learning and performance.

### **5.4.3 Recommendations for Further Research**

The study recommended that a study be done exploring the effectiveness of specific instructional supervision strategies implemented by principals on student academic achievement. A detailed investigation into various supervisory approaches such as formative versus summative evaluations, peer observations, or targeted professional development could provide insights into which strategies are most effective in enhancing teaching practices and student outcomes. By comparing the impact of these different strategies across a range of schools, researchers can identify best practices and develop tailored recommendations for principals to optimize their supervision efforts and improve academic performance.

Additionally, further studies could examine the role of teacher perceptions and experiences in the effectiveness of instructional supervision. Research could investigate how teachers' attitudes towards feedback and supervision influence their implementation of recommended practices and their overall performance. Understanding the relationship between teacher receptivity to supervision and its impact on student achievement could help in designing more supportive and effective supervision models. This approach would provide a holistic view of the supervisory process, addressing both principal strategies and teacher engagement, to enhance educational outcomes.

The study further recommended conducting a similar investigation into the influence of principals' instructional supervision strategies on students' academic achievement in other sub-counties to allow for a comparative analysis of the findings.

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## APPENDICES

### APPENDIX I: Cover Letter

TANGAZA UNIVERSITY COLLEGE  
P.O BOX 15055.  
NAIROBI, KENYA

Dear participant,

#### **RE: COLLECTION OF SURVEY DATA**

I am a student at Tangaza University College, which is a constituent college of the Catholic University of Eastern Africa (CUEA). I am currently pursuing a degree of Master of Education in Educational Leadership and Administration. My research is aimed at finding out "*Principals' Instructional Supervision Strategies on Students' Academic Achievement in Public Secondary Schools in Gatanga Sub-County, Muranga County.*" I kindly request that you participate in this study and be assured of the confidentiality of any information you will provide.

Thank you in advance.

Yours faithfully,

**Adhiambo Jackline Awino**

### APPENDIX II: CONSENT FORM

Dear participant,

My name is Adhiambo Jackline Awino, a Masters student at Tangaza University. I am inviting you to participate in a research study entitled, "*Principals' Instructional Supervision Strategies on Students' Academic Achievement in Public Secondary Schools in Gatanga Sub-County, Muranga County.*" You have been chosen to voluntarily participate in this study, and you may choose to participate or not. You may also decline to answer any questions or decide to withdraw from this study. Be assured that the information you share will be kept anonymous and confidential and will be used for academic purposes only. In case you have any questions regarding the way this study is conducted, you can contact Adhiambo Jackline Awino(adhiambosuku@yahoo.com).

#### **CONSENT**

I have read and understood the provided information. I have also had the opportunity to ask questions. I further understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that the research is for academic purposes, and I consent to its use in that manner. I hereby voluntarily agree to take part in this research.

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

## **APPENDIX III: Questionnaire for the Teachers**

### **SECTION A: Demographic Information**

1. Kindly indicate your gender:

Male ( )

Female ( )

2. Kindly indicate your age bracket:

Below 25 years ( )

25-30 ( )

31-40 ( )

41-50 ( )

51 years above ( )

3. What is your level of education?

i) Certificate ( )

ii) Diploma ( )

iii) Bachelors' Degree ( )

iv) Masters Degree ( )

v) Doctor of Philosophy ( )

4. Indicate your years of teaching experience

Less than five years ( )

5-9 years ( )

10-14 years ( )

15- 19 years ( )

20 years above ( )

### **SECTION B: Principals' Classroom Observation Strategy and Students' Academic Achievement**

5. The statements provided are about the influence principals' classroom observation strategy on students' academic achievement. Please rate your degree of agreement with each statement by

ticking (✓) in the box next to the statement that expresses your answer. Use the scale: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD).

| Number | Statement                                                                                                                                                    | SA | A | UD | D | SD |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|----|---|----|
| i.     | The feedback from principals' classroom observations is constructive and helps me enhance my teaching methods, which helps to improve students' performance. | 1  | 2 | 3  | 4 | 5  |
| ii.    | The classroom observation by the principal has helped me improve my class management, which has enhanced students' performance.                              |    |   |    |   |    |
| iii.   | I feel my lesson presentations have improved as a result of feedback received from classroom observations by the principal.                                  |    |   |    |   |    |
| iv.    | Classroom observations are a fair reflection of my teaching performance.                                                                                     |    |   |    |   |    |
| v.     | Our principal observes teachers' mastery of content, syllabus coverage, and lesson notes, which has improved learners' performance.                          |    |   |    |   |    |
| vi.    | The classroom observation process contributes to the overall improvement of students' academic outcomes.                                                     |    |   |    |   |    |
|        |                                                                                                                                                              |    |   |    |   |    |

6. Describe how the principal in your school conducts classroom observations.

.....  
 .....

7. Explain how classroom observations in your school influences students' performance.

.....  
 .....

**SECTION C: Influence of principals' Provision of Instructional Materials to Teachers on Students' Academic Achievement.**

7. The statements provided are about the influence of principals' provision of instructional materials to teachers on students' academic achievement. Please rate your degree of agreement

with each statement by ticking (✓) in the box next to the statement that expresses your answer. Use the scale: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD).

| Number | Statement                                                                                                                                                                 | SA | A | UD | D | SD |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---|----|---|----|
| i.     | The instructional materials such as text books and reference books provided by the principal are relevant to my teaching needs and help improve student performance.      |    |   |    |   |    |
| ii.    | The availability of instructional materials from the principal has a positive impact on my teaching effectiveness, which results in improved students' performance.       |    |   |    |   |    |
| iii.   | The instructional materials provided by the principal such as worksheets, charts, graph are up-to-date, which has often helped to improve student performance.            |    |   |    |   |    |
| iv.    | The principal's support in providing instructional materials enhances my ability to meet the diverse learning needs of my students, which has improved their performance. |    |   |    |   |    |
| v.     | I feel well supported by the principal in terms of instructional materials to enhance student learning and performance.                                                   |    |   |    |   |    |

8. List some of the instructional materials that the principal has provided to the teachers that have enhanced the academic performance of students.

.....

.....

9. List some of the improvements in students' academic performance that have resulted from the support provided by your principals in the provision of instructional materials.

.....

.....

**SECTION D: Principal-Teacher Collaborative Planning Strategy and Students' Academic Achievement**

9. The statements provided are about the influence of principal-teacher collaborative planning strategies on students' academic achievement. Please rate your degree of agreement with each

statement by ticking (✓) in the box next to the statement that expresses your answer. Use the scale: Strongly Agree (SA), Agree (A), Undecided (UD), Disagree (D), and Strongly Disagree (SD).

| Number | Statement                                                                                                                     | SA | A | UD | D | SD |
|--------|-------------------------------------------------------------------------------------------------------------------------------|----|---|----|---|----|
| i.     | Our principal regularly meets with teachers to discuss students' academic improvement strategies.                             |    |   |    |   |    |
| ii.    | Our principal and teachers work together to improve students' grades.                                                         |    |   |    |   |    |
| iii.   | Our principal works with teachers to analyse results and identify areas among learners that need improvement.                 |    |   |    |   |    |
| iv.    | Principal-teacher collaboration enhances teachers' commitment, which improves students' performance.                          |    |   |    |   |    |
| v.     | Principal-teacher collaboration facilitates the sharing of innovative teaching approaches that improve students' performance. |    |   |    |   |    |
| vi.    | The principal and the teachers discuss the students' performance.                                                             |    |   |    |   |    |

10. List some of the ways your principal collaborates with teachers to improve students' performance.

.....  
 .....

**APPENDIX IV: Interview Guide for Principals**

**Section A: Demographic Information**

1. Kindly indicate your gender:

Male ( )

Female ( )

2. Kindly indicate your age bracket:

- Below 25 years ( )
- 25-30 ( )
- 31-40 ( )
- 41-51 ( )
- 52 years above ( )

3. What is your level of education?

- i) Certificate ( )
- ii) Diploma ( )
- iii) Bachelors' Degree ( )
- iv) Master's Degree ( )
- v) Doctor of Philosophy ( )

4. Indicate your years of experience as a principal

- Less than five years ( )
- 5-9 years ( )
- 10-14 years ( )
- 15- 19 years ( )
- 20 years above ( )

5. Which strategy do you currently use to observe teachers? What specific methods or tools do you use to assess classroom instruction?

6. Can you provide examples of how your classroom observation process has led to improvements in students' academic achievement in your school?

7. Have you implemented any innovative or unique approaches to classroom observation that you believe have made a significant difference in student success?

8. Are there any specific examples that demonstrate the positive impact of your approach to instructional material provision on students' academic achievement?

9. Can you share examples of how the provision of instructional materials has positively affected teacher preparedness and classroom instruction?

10. Can you provide specific instances that highlight improvements in students' academic performance as a result of your support for instructional materials?

11. Can you share some examples where collaborative planning strategies directly contributed to improved academic achievement for your students?

12. Can you provide examples of specific initiatives that have been a result of collaborative planning? How have they impacted student achievement?

## **APPENDIX V: Interview Guide for County Director of Education**

### Section A: Demographic Information

1. Kindly indicate your gender:

Male

Female

2. Kindly indicate your age bracket:

Below 25 years

25-30

31-40

41-51

52 years above

3. What is your level of education?

i) Certificate

ii) Diploma

iii) Bachelors' Degree

iv) Master's Degree

v) Doctor of Philosophy

4. Indicate your years of experience as a County Director of Education

Less than five years

5-9 years

10-14 years

15- 19 years

20 years above

5 What specific methods or tools do principals in your schools use to assess classroom instruction?

6. Can you provide examples of how classroom observation process has led to improvements in students' academic achievement in your schools?

7. Are there any specific examples that demonstrate the positive impact principals' approach to instructional material provision on students' academic achievement?
8. Can you provide specific instances that highlight improvements in students' academic performance as a result of your support for instructional materials?
11. Can you share some examples where collaborative planning strategies directly contributed to improved academic achievement for your students?
12. Can you provide examples of specific initiatives that have been a result of collaborative planning between teachers and principals? How have they impacted student achievement?

#### **APPENDIX VI: Data Analysis Matrix**

| <b>Objectives</b>                        | <b>Data source</b>                 | <b>Data collection method</b> | <b>Data analysis</b> |
|------------------------------------------|------------------------------------|-------------------------------|----------------------|
| Classroom observation                    | • Teachers                         | Questionnaires                | Quantitative         |
|                                          | • Principals                       | Interviews                    | Qualitative          |
|                                          | • Sub-County Director of Education | Interviews                    | Qualitative          |
| Provision of instructional materials     | • Teachers                         | Questionnaires                | Quantitative         |
|                                          | • Principals                       | Interviews                    | Qualitative          |
|                                          | • Sub-County Director of Education | Interviews                    | Qualitative          |
| Principal-teacher collaborative planning | • Teachers                         | Questionnaires                | Quantitative         |
|                                          | • Principals                       | Interviews                    | Qualitative          |
|                                          | • Sub-County Director of Education | Interviews                    | Qualitative          |

## APPENDIX VII: Recommendation Letter



# TANGAZA UNIVERSITY

*Teaching Minds / Touching Hearts / Transforming Lives*

**REF:** DRIE/ISERC2024/01/0024

11<sup>th</sup> July 2024

**To:** *Awino Jackline Adhiambo*

*Reg. No. CMLA 1709*

Dear Awino,

**Re: "PRINCIPALS' INSTRUCTIONAL SUPERVISION STRATEGIES ON STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SECONDARY SCHOOLS IN GATANGA SUB-COUNTY, MURANGA COUNTY, KENYA".**

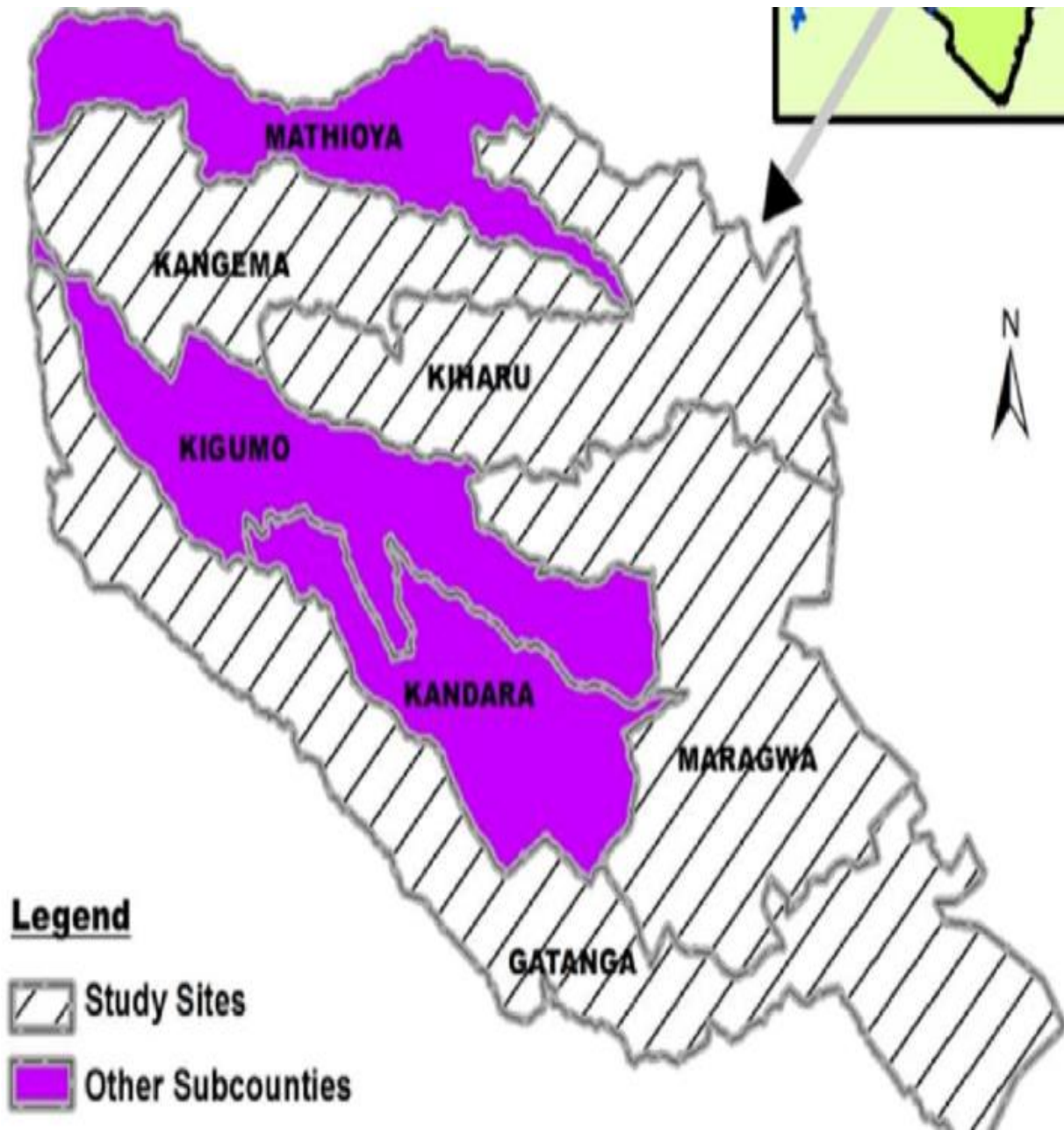
This is to inform you that TU-ISERC has reviewed and approved your above research proposal. Your application approval number is *TU-ISERC2024/01/0024*. The approval period is **11<sup>th</sup> July 2024 – 12<sup>th</sup> July 2025**. This approval is subject to compliance with the following requirements:

1. Only approved documents including (informed consents, study instruments, MTA) will be used
2. All changes including (amendments, deviations, and violations) are submitted for review and approval by TU-ISERC.
3. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to TU-ISERC within 72 hours of notification.
4. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to TU-ISERC within 72 hours
5. Clearance for export of biological specimens must be obtained from relevant institutions.
6. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
7. Submission of an executive summary report within 90 days upon completion of the study to TU-ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.



**APPENDIX IX: Map of Gatanga Sub-County**



**Source:** <https://www=map-of+gatanga+sub-county,+muranga+county>