THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

INFLUENCE OF SELECTED TOTAL QUALITY MANAGEMENT TECHNIQUES USED BY PRINCIPALS ON STUDENTS' ACADEMIC PERFORMANCE IN K.C.S.E SCHOOL EXAMINATIONS IN PUBLIC SECONDARY SCHOOLS IN MVITA SUB-COUNTY, MOMBASA COUNTY, KENYA

https://journal.cuea.edu/ojs1/index.php/cjhss/article/view/131

[1] **Evans Obisa Chandai** [2] Madeleine Sophie Barat, [3] Dr. Jane Kamau

Email:tonychandai38@gmail.com

Abstract

Student performance in public secondary schools in Mvita Sub-County has been below expectations even after policy interventions. This research explored how the application of selected Total Quality Management (TQM) techniques influence on student academic achievement through the use of quality circles, benchmarking, and continuous improvement activities. This research was informed by the TQM theory of Deming and utilized a convergent parallel mixed-methods research design. Questionnaires, interviews, and observation checklists were employed to collect data in five public secondary schools. Descriptive statistics were performed using SPSS (v25) on quantitative data and qualitative data was analyzed thematically. The findings revealed that quality circles facilitated collaborative problem-solving and learner engagement, whereas benchmarking facilitated the implementation of best practices, which improved teaching and planning. Continuous improvement supported frequent assessment and feedback, which enhanced KCSE performance among students. Nevertheless, obstacles like financial issues, teacher shortages, excessive workloads, change resistance, poor parental involvement, and indiscipline among students hampered successful TQM implementation. The research finds that TQM techniques have considerable potential to improve student performance but require the support of the institution and cooperation of stakeholders. It suggests specific investments in teacher training, mentoring, parent involvement, better infrastructure, formal academic assistance, and enhanced leadership abilities among school administrators to foster sustainable TQM practices in public middle and high schools.

Keywords: Total Quality Management, Student Performance, Quality Circles, Benchmarking, Continuous Improvement, Mvita Sub-County

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Statement of the Problem

The reviewed literature on international settings such as the United States (Singh, 2021), Asia (Khurniawan, 2020; Gokl & Ozcertin, 2022), and Africa (Onyali & Ejesi, 2022) provides consistent evidence that the use of Total Quality Management (TQM) methods in education results in enhanced student academic performance, staff satisfaction, and improved institutional outcomes. The studies highlight the importance of quality circles, benchmarking, and continuous improvement as major contributors to school effectiveness.

This has not been the case in Mvita Sub-County, Mombasa County in Kenya, however. The result has been chronic poor academic performance in public secondary schools in the region despite continued government, political interest, and parent support. The Quality Assurance and Standards Unit in Mombasa County (2024) has revealed that six schools have not recorded mean KCSE grades of C+ or higher over the past five years (2019-2023). This persistent underachievement threatens the educational and social mobility of students.

Although one of the studies by Ismail (2022) conducted in Mombasa emphasized the importance of management practices by principals to learning outcomes, there is a critical gap in locally-based literature examining how TQM techniques are implemented in school management. This paper fills the identified gap by examining how quality circles, benchmarking, and continuous improvement as chosen TQM techniques influence student performance in the public secondary schools in Mvita Sub-County of Kenya, thus adding a new piece of empirical evidence to national and international education discourse.

Rationale for the Study

The research aimed at examining how the implementation of specific Total Quality Management (TQM) practices affects the performance of students in state secondary schools in Mvita Sub-County, Mombasa County. According to recent reports, Kenya has been struggling to achieve consistent and satisfactory results in its Kenya certificate of secondary education examinations, with numerous public secondary schools still recording inconsistent and oftentimes unsatisfactory results despite government attempts to enhance learning outcomes by reforming policies and directing resources accordingly (Ministry of Education, 2022). At Mvita Sub-County, there is a persistent disparity in academic performance due to gaps in quality assurance and the uneven delivery of instructional improvement strategies (TSC, 2021).

Consequently, this research aimed at gaining additional knowledge and contributing to the existing body of literature about the impact of TQM practices on the performance of students in the Kenyan Certificate of Secondary Education in publicly secondary schools in Mvita Sub-County. The findings were intended to support education stakeholders school leaders, teachers, policymakers, and development partners in designing evidence-based interventions aimed at enhancing teaching effectiveness and academic excellence through structured quality improvement approaches (UNESCO, 2021).

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Theoretical Framework of the Study

The study was guided by the Total Quality Management Theory, which was first put forth by Edwards Deming in the 1950s as a result of his groundbreaking research on organizational and industrial quality improvement in post-war Japan. According to Daft and Marcic (2006), TQM is defined as "an organization-wide commitment to infusing quality into every activity through continuous improvement" (p. 243). In the context of education, TQM emphasizes collective responsibility, stakeholder involvement, and ongoing process enhancement to improve outcomes such as student academic performance. According to Gupta (2018), TQM refers to a set of synchronized activities and values that enable an organization to achieve and surpass the expectations of its stakeholders consistently. Within the education sector, this means that every aspect of institutional activity, including classroom teaching and administrative decision-making, must aim to enhance service delivery to students.

TQM has been increasingly adopted globally in the education sector to enhance institutional effectiveness, teaching quality, and student performance. Research in the United States, including by George-Dorel (2022) and Singh (2021), has demonstrated that schools that adopt TQM experiences can improve their learning conditions, cohesiveness among staff, and student performance. In Asia, Khurniawan (2020) and Gokl & Ozcertin (2022) found that benchmarking and ongoing improvement had played a significant role in improving curriculum delivery and academic achievements. Onyali & Ejesi (2022) showed that in Africa, the use of quality circles and participatory decision-making in schools has led to improved teacher satisfaction rates and student retention rates.

Three important elements of TQM that are pertinent to this research are benchmarking, quality circles, and continuous improvement. According to Rexhepi (2018), benchmarking is a method that allows institutions to compare and use the best practices of others to enhance their performance (p. 110). The concept of quality circles, according to Daft and Marcic (2019), entails a small, voluntary staff group that meets periodically to discuss and address work-related issues, leading to improved teamwork and innovation. Finally, as described by Gupta (2018), continuous improvement includes continuous capacity building among the staff, particularly in the areas of ICT, mentorship, and data-driven decision-making, which are key factors in maintaining academic excellence.

The foundational principle of TQM, as emphasized by Deming (1991), is that quality improvement should be systemic, participatory, and aligned with the needs of the "customer" in this case, the learner. The theory asserts that every staff member, from top management to the classroom teacher, plays a crucial role in ensuring institutional effectiveness and student success.

Gitonga (2021) highlighted that institutions applying TQM benefit from increased customer (student and parent) satisfaction, stronger staff motivation, and enhanced operational efficiency. However, scholars such as Winn (1998) have noted that the implementation of TQM in educational institutions may face challenges, including resistance to change, the demand for

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

significant resources, and difficulty in measuring outcomes in the short term.

Despite these limitations, the application of TQM theory remains relevant in the education sector. As Karingu (2025) pointed out, TQM principles can be applied across various school functions including admissions, staff recruitment, and academic delivery to systematically improve student academic performance and institutional accountability.

Review of Related Literature

Quality circles have emerged as a Total Quality Management tool that fosters collaborative problem-solving and continuous improvements in institutions including schools. According to Gopi and Suresh (2021), quality circles are small groups of employees working in the same work area that gather on a voluntary basis to discuss problems, exchange experiences, and develop solutions to enhance working processes. The authors discovered that these frequent meetings contributed to better work performance, confidence in applying technological skills, and employee motivation. Their advice was that the optimal size of effective quality circles was 5-8 members to ensure that each member makes a meaningful contribution and engagement is maintained.

Although the study by Gopi and Suresh (2021) offers insights into the importance of quality circles in improving teacher performance, it had a limited scope addressing only the role of teachers and ignoring the involvement of other important stakeholders, including students and school principals, which is essential in effective implementation of TQM. Such omission indicates poor comprehension of the systemic and participatory character of quality circles, which by their very nature are intended to involve various ranks within an organization. Furthermore, the use of a purely quantitative research design, even though effective in determining the general trends, limited the study in its potential to reveal the subtle, context-sensitive dynamics that define the relationship between quality circles and different educational environments.

Importantly, the research also failed to investigate whether institutional culture, leadership support, or student engagement could mediate the effectiveness of TQM practices. Such omissions limit the generalizability of findings in diverse school settings, especially in developing country settings where structural and resource limitations vary widely. In response, the current study broadens the analytical lens by incorporating students, teachers, and school principals. It also adopts a convergent parallel mixed-methods design, which allows for both measurable insights and deeper qualitative understanding of the contextual factors shaping the impact of quality circles on student academic performance in public secondary schools.

In Greece, Kaiseroglou and Fakianaki (2023) examined how teachers' demographic characteristics influenced the implementation of Total Quality Management in primary education. Drawing on data from 2,088 teachers and school heads, the study found that collaborative practices between principals and teachers were strongly associated with improved student achievement. These findings reinforce the significance of internal school cohesion and leadership alignment in promoting

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

educational quality. However, the study was heavily reliant on staff self-reports, which, while valuable, risk reinforcing internal biases and overlook how students the primary beneficiaries of educational reforms experience and interpret the outcomes of TQM practices.

Moreover, the exclusive focus on teacher and headteacher perspectives reduces the explanatory power of the findings, especially when considering student-centered components of TQM such as feedback loops and learner engagement. The absence of student voices represents a significant methodological gap, given that student perception and participation are central to the success of quality circles and continuous improvement strategies.

This research overcomes this limitation by incorporating students as primary respondents. This strategy provides a more holistic and balanced perspective on the role of quality circle practices in shaping not just the institutional collaboration but also the academic experience and academic performance of students at publicly funded secondary schools.

In a similar study, Karimah and Arifin (2023) investigated the practice of TQM in Indonesia, with a focus on the adoption of some approaches such as quality circles and continuous improvement. Through observation, interviews, and documentation, they determined that when principals, teachers, and non-teaching staff collaborate in quality circles, they improve teamwork, shared vision, and school-wide policy implementation. This in turn leads to enhanced student performance. However, the research presented a descriptive case study design and was based more on the personal observations of the researcher without student input. The present study bridged this divide by engaging with students directly and basing its design around TQM theory to guarantee a comprehensive insight into quality circles and their impact on academia.

Khasanah and Riyantol (2018) used a qualitative case study in Bangladesh to examine strategic TQM practices in the educational sector. Their results emphasized the transformational effects of school leadership, indicating that when leaders possess a shared vision, encourage team building, and engage in ongoing systems evaluation, the outcome is the improvement of teacher performance and an even more positive and supportive learning environment. Although this analysis highlights the relevance of leadership-based approaches, including quality circles and system-wide alignment, it is limited in scope due to its managerial and internal staff relations orientation.

A key limitation of their approach is the absence of student perspectives, despite TQM's foundational emphasis on stakeholder involvement especially the "customer," in this case, the learner. The study fails to consider the practical academic experiences of learners and the outcomes of these leadership practices by disregarding the voices of students. Moreover, the single-case design can provide depth but restricts the generalization of the results beyond the particular institutional setting.

The study fills these gaps by involving student input directly, making them key assessors of quality circle TQM strategy effects on academic performance. This expanded stakeholder focus strengthens the validity and generalizability of the

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

findings to diverse school settings. Onyali et al. (2020) in Nigeria analyzed the manner in which school leaders utilize Total Quality Management practices to facilitate professional growth within Anambra State. In their survey of 999 respondents, they discovered that school heads who exercised delegation and supported shared decision-making had a notable impact on staff motivation and overall institutional performance. These results are consistent with the leadership-based aspect of TQM, which focuses on the importance of participatory management in school performance.

Nevertheless, the research is lacking in two fundamental aspects. It does not explicitly present a theoretical framework, which makes it less effective in bridging the gap between the empirical observations and the theory of quality management. This oversight complicates the location of the findings within a larger scholarly discourse on TQM in education. Second, the study does not consider the viewpoints of students arguably the most important stakeholders in the education process. Consequently, it provides an incomplete perspective on the operation of TQM strategies within the real-world situations of school settings, especially those involving student-centered initiatives such as quality circles. Both of these limitations are addressed in this study, which explicitly roots its inquiry in the Deming TQM framework and leverages student voices to assess the extent to which quality circle practices, when informed by effective leadership, shape the academic engagement and performance of learners.

In Kenya, Kavutai et al. (2020) examined the impact of TQM practices on public secondary schools in Makueni County. They observed that in a quantitative research study that they carried out, staff participation was positively and strongly correlated to student success (r =.611), teacher capacity building (r =.561), and senior management involvement (r =.557) (p. 57). While the study included students and teachers, it did not provide an in-depth analysis of the specific TQM techniques employed or the contextual challenges faced in sub-counties such as Mvita. The described knowledge gap was bridged by the current research that aimed at studying the practice of quality circles introduction in the Mvita Sub-County and the way this practice interacts with the educational and socio-cultural context.

The other study conducted by Kavutai (2018) was concerned with quality circles, communication, training, and staff development in the secondary schools of the public. Their findings indicated that under the circumstances when the management promoted autonomy and involvement of the staff members in quality circles, schools registered a decreased number of costs, increased quality of service and student satisfaction. Nevertheless, the research study used only quantitative findings and did not include students into the sample. Although it pointed this out, i.e. empowering teachers would promote creative thinking and initiative, it failed to evaluate the success of teacher empowerment in benefiting the academic special performance of students.

Although the research already in publication offers insightful information about the application and outcomes of TQM in educational institutions across different global contexts, there remained a significant

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

gap in localized studies within sub-Saharan Africa, particularly in Kenya. Few studies had explored how TQM techniques directly influence students' academic performance within Kenyan secondary schools. Therefore, this research aimed at addressing this gap by evaluating the effectiveness of TQM techniques in public secondary schools in Mvita Sub-County, Mombasa County, Kenya, using a convergent parallel mixed-methods research design.

Methodology

The research was conducted using a convergent parallel mixed-methods research design, which enables the researcher to gather both quantitative and qualitative data, analyze them independently of each other, and subsequently compare and interpret the findings in a combined way (Creswell & Plano Clark, 2018). Creswell and Creswell (2018) note that this design is especially appropriate when the research aims to achieve the statistical generalizability of quantitative data and the contextual richness of qualitative data. In the present study, this method was suitable because it enabled an examination of quantifiable associations between Total Quality Management practices and academic performance, as well as the lived experience and views of the critical stakeholders.

The quantitative element utilized a descriptive cross-sectional survey design, which is useful in measuring variables at a given moment in time and revealing trends within a population (Levin, 2006). Cross-sectional designs, according to Kendra (2019), are valuable in studying phenomena in their natural state, without manipulation, and appropriate when time or resource limitations restrict longitudinal follow-up. The study involved the use of structured questionnaires to collect data on the prevalence and perceived impact of TQM practices on a large sample of students, teachers, and principals. To guarantee validity, the items were modeled on validated measures in previous TQM and educational research, and were reviewed by educational specialists. A pilot study was conducted with 10 percent of the target population representative of schools outside Mvita Sub-County to test reliability. Cronbach alpha was used to confirm internal consistency, where all scale items had a score above 0.75, which is acceptable.

The qualitative element was based on phenomenology, a framework that seeks to understand how people experience a given phenomenon (Ary, Jacobs, & Razavieh, 2022). Semi-structured interviews with principals and teachers provided rich and nuanced data on the lived experiences of implementing TQM practices. Strategies to ensure trustworthiness included member checking, extended contact, and peer debriefing. The research also used triangulation to enhance credibility and confirmability; multiple data sources (students, teachers, and principals) were used to validate themes and interpretations (Akuley & Tiimub, 2021). Donkoh and Mensah (2023) reaffirm that triangulation enhances the rigor and validity of results by producing an alignment of evidence across multiple perspectives.

The sample population was composed of 16 public secondary schools in Mvita Sub-County, covering 16 principals, 382 teachers, and 2,118 Form Three learners. These groups were deliberately selected for their unique roles in the educational ecosystem. Principals, as institutional

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

leaders, were critical for understanding school-level decision-making and implementation of TQM strategies. Teachers provided insights into the operationalization of quality practices in classrooms, while students nearing their Kenya Certificate of Secondary Education examinations were well positioned to reflect on how these practices shaped their academic experiences and outcomes.

Ethical approval was obtained from the relevant institutional review board before data collection. Additional authorization was secured from the Ministry of Education and the participating schools. **Informed consent** was obtained from all adult participants, while students under 18 were included only with both **parental consent** and **student assent**. Confidentiality and anonymity were strictly maintained, and participation was entirely voluntary. All collected data were securely stored and used exclusively for academic research. No personally identifiable information was recorded, and findings were reported in aggregated form to ensure privacy.

Sampling Procedure and Sample Size

As part of its mixed methods research design, the study employed both probability and non-probability sampling methodologies. According to Gay, Mills, and Airasian (2012), "probability sampling techniques permit the researcher to specify the probability or chance that each member of a defined population will be selected for the sample". School, teacher, and student selection was carried out using probability sampling. Non-probability sampling was used to pick school principals. There are 16 public secondary schools in Mvita Sub-County. Simple random selection was used to select five schools (30%) depending on school type. All five school principals were included using purposive sampling due to their leadership role in implementing TQM practices. From the five schools, proportional stratified sampling was used to select 115 teachers out of 382, considering gender, subject specialization, and experience. Similarly, 635 Form Three students were selected from a population of 2,118 using proportional stratified random sampling, ensuring gender representation. In total, the study sampled 5 schools, 5 principals, 115 teachers, and 635 students.

Data Collection and Procedures

According to Creswell and Clark (2011), mixed methods data collection involves key components such as **sampling, gaining permissions, collecting and recording data**, and **administering the data collection process**. This study applied a convergent parallel mixed methods design, obtaining quantitative data through questionnaires while also collecting qualitative data through interviews and observations. For the quantitative strand, probabilistic sampling was employed to pick instructors and Form Three pupils from public secondary schools in Mvita Sub-County in order to ensure representativeness. Purposive sampling was used in the qualitative strand to choose school principals who gave detailed and important information. Before undertaking fieldwork, the researcher acquired approval letter from the Catholic University of Eastern Africa (CUEA) and a NACOSTI research permit. The County Director of Education authorized entry to schools

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

through the Ministry of Interior and National Administration. Pre-visits to schools were conducted to **book appointments**, organize logistics, and coordinate with principals and class teachers. **Questionnaires** for teachers and students were administered on scheduled days, while **face-to-face interviews** with principals was arranged separately. The **observation checklist** was used to assess real-time practices, documents, and infrastructure within the school environment. The collection of both qualitative and quantitative data was conducted concurrently and given **equal weight**, in line with mixed methods best practices (Creswell & Clark, 2018).

Data Analysis /Interpretation

Data analysis is the systematic process of organizing, evaluating, and interpreting obtained data in order to make useful conclusions. This study examined both quantitative and qualitative data to determine the impact of total quality management methods, including quality circles, benchmarking, and continuous improvement, on students' academic achievement in public secondary schools in Mvita Sub-County, Mombasa County. Quantitative data were obtained from structured questionnaires administered to Form Three students and teachers. Once collected, the data were carefully checked for completeness, coded based on research objectives, and entered into Microsoft Excel for initial processing. The data were then exported to SPSS version 25 for statistical analysis. The replies were summarised using descriptive statistics such as frequencies, percentages, mean values, and standard deviations. These summaries gave information on general trends and patterns in the data.

To investigate links between variables, inferential statistics were used. The Pearson Product-Moment Correlation Coefficient was used to assess the degree and direction of the associations between TQM practices and student academic achievement. Chi-square tests were applied to evaluate the relationships that exists between the categorical variables and regression analysis in finding out how TQM practices predict an academic performance. Interviews with the principals, observation checklists and documents analyses were used to collect qualitative data. Thematic analysis of this data was done. The researcher started with the transcription of records and the field notes review. The main words and concepts were also identified and data were organized into codes that indicated a developing pattern. All the relevant codes were grouped according to related themes which matched the research questions. The explanations of these themes have been given in a narrative form with the direct quotes of the participants to substantiate the findings. The fact that both the quantitative and qualitative methods were used made the findings deeper, valid and reliable. Through comparison of the thought in both of the strands, the study was capable of giving a more comprehensive interpretation of the practice of total quality management and how it affects academic performance in the given study scenario.

Findings, Interpretations and Discussions

There has been a growing reception of quality circle in educational institutions as a Total Quality Management methodology in pursuit of enhancing effectiveness of schools

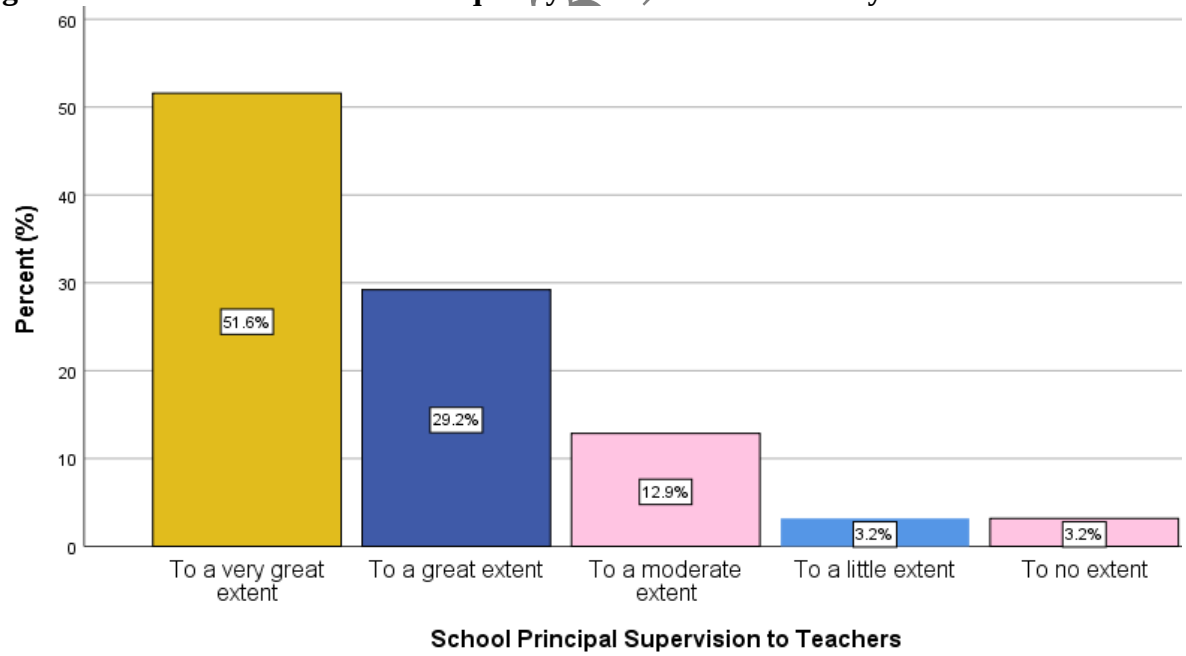
THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

and the results of the learners. This was the case in the public secondary schools in the Mvita Sub-County of the Mombasa County in which the application of quality circles by the respective principals may influence the improved achievement by the students. Gitonga (2020) thinks that quality circles in schools enable staff to have a certain responsibility in problem-solving among staff; therefore, fostering a positive learning environment.

The Use of Quality Circles by Principals and its influence on Students' Academic Performance

This study aimed to assess how selected Total Quality Management techniques employed by school principals particularly quality circles affects students' academic performance in the Kenya Certificate of Secondary Education in public secondary schools in Mvita Sub-County, Mombasa County. A key focus was how effectively principals ensured consistent teacher attendance and lesson delivery. Learner participants were asked to evaluate the extent to which their teachers consistently attended and conducted lessons, as influenced by the principal's leadership. Their responses are summarized in Figure 3 below.

Figure 3: Students Views on the Frequency of Class Attendance by Teachers



The results indicate that 51.6% of students believed their principals ensured lesson attendance to a very great extent, while 29.2% said this was done to a great extent. Only 12.9% reported a moderate

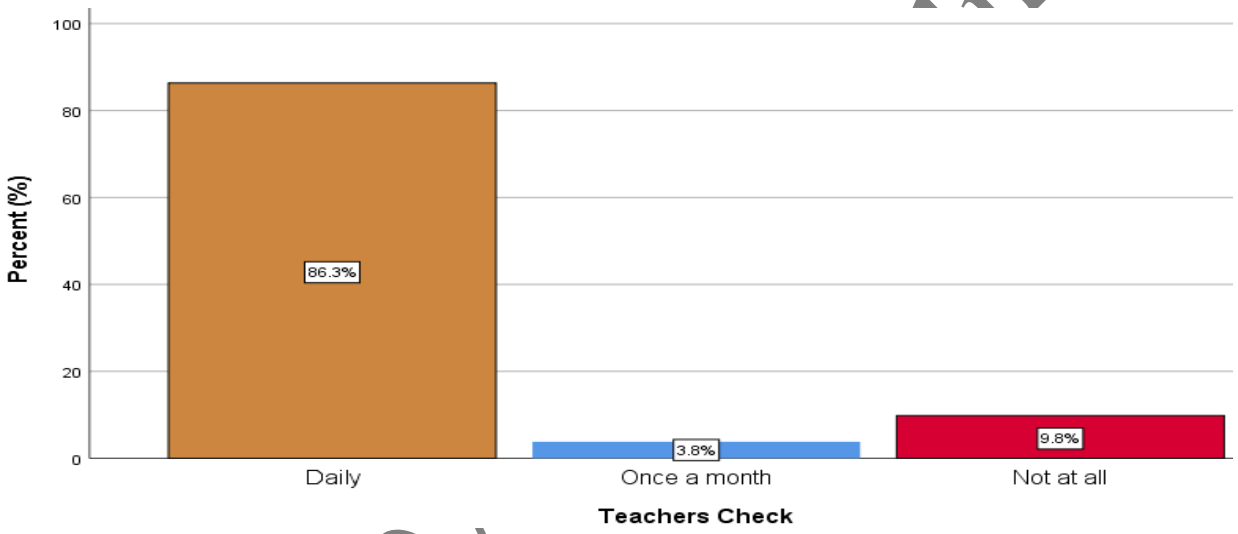
THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

extent, and a small fraction (3.2%) indicated that lesson monitoring was not conducted at all. These findings suggest that a significant majority of students perceived their schools to have strong systems in place to ensure lesson attendance. Critically, these results underscore the importance of instructional leadership as a core component of TQM. In schools where principals actively employed quality circles to oversee lesson delivery, there was greater consistency in teaching, more effective syllabus coverage, and improved learner preparation for examinations. Quality circles enable collaborative reflection, peer monitoring, and shared problem-solving among teachers, thereby enhancing accountability and instructional quality. This was corroborated by qualitative data from school heads. One principal explained: "Quality circles provide an opportunity for teachers to engage in peer monitoring, self-regulation, and discussions on best practices, leading to improved teaching efficiency. Where principals actively utilize quality circles to enhance lesson monitoring, students benefit from structured learning, improved content retention, and overall academic improvement." (Principal 1, personal communication, September 16, 2024). Another principal emphasized the value of quality circles in promoting shared responsibility: "In public secondary schools in Mvita Sub-County, where teachers occasionally miss lessons, quality circles serve as a mechanism to enhance accountability, foster professionalism, and cultivate a culture of shared responsibility." (Principal 2, personal communication, September 16, 2024.

These findings align with Gopi and Suresh (2021), who observed that consistent lesson monitoring is a reflection of effective instructional leadership and directly supports improved student learning outcomes. Similarly, Onyali et al. (2020), in a Nigerian context, noted that the integration of performance appraisals with collaborative mechanisms such as quality circles significantly enhances teacher accountability and instructional quality. They argue that such integration allows for targeted professional development by identifying areas of strength and improvement. From these insights, it is evident that where principals actively use quality circles to track and improve lesson delivery, students benefit through better academic structure and engagement. Conversely, schools lacking such mechanisms risk inconsistent instructional practices. To address this, it is recommended that underperforming schools consider integrating structured performance evaluations with collaborative quality circle sessions to institutionalize effective and accountable teaching. The researcher asked students how often teachers check students' progress. Findings are presented in Figure 4:

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Figure 4: Students Views on the Frequency of Supervision of Teachers on their Class Work



Source: Field Data (2024).

As illustrated in Figure 4, a significant majority (**86.3%**) of students reported that their teachers check academic progress **on a daily basis.** This indicates the presence of a strong instructional culture centered on **continuous assessment** and **formative feedback** in most public secondary schools in Mvita Sub-County. Such consistent engagement is likely to promote timely identification of learning gaps, reinforce lesson content, and enable more tailored interventions to support academic growth. Qualitative interviews with principals and teachers reinforced this interpretation. Respondents emphasized that academic monitoring typically includes tracking **class attendance**, **student participation, homework completion**, and **formative assessments.** As one teacher explained, "I always monitor attendance closely because if a student misses' class frequently, they start falling behind quickly, especially in examinable subjects" (Teacher 4, personal communication, September 16, 2024).

Active participation was another key area cited. Teachers reported observing whether students engage during lessons by asking questions, contributing to discussions, and responding to tasks behaviors often linked to improved academic retention and

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

understanding. However, despite the overall positive trend, **9.8%** of students indicated that their academic progress is **not monitored at all,** while **3.8%** reported that checks occur **only on a monthly basis.** These findings suggest a degree of inconsistency in how academic monitoring practices are implemented across schools and classrooms. While some students benefit from highly engaged and responsive teachers, others lack the same level of instructional support.

This disparity raises critical concerns. Students without regular progress checks are more likely to experience **unaddressed learning difficulties,** miss key academic milestones, and ultimately perform poorly on high-stakes assessments such as the KCSE. As such, inconsistencies in monitoring may partly explain why poor academic outcomes persist in some schools, despite high overall teacher engagement. These findings are consistent with Kavutai (2018), who emphasized that **frequent and systematic academic progress monitoring** is essential for enhancing student outcomes. Kavutai noted that irregular monitoring often leads to delayed identification of learning challenges, limiting the opportunity for early and effective interventions. Conversely, students who receive **timely feedback and academic support** demonstrate higher levels of motivation, engagement, and academic success.

In light of these results, there is a clear need for **standardized progress monitoring systems** across all schools in Mvita Sub-County. Strengthening teacher accountability and aligning classroom monitoring practices with institutional goals could help close the instructional support gap and enhance equity in student academic performance.

Teachers were required to rate their competency level; the extent to which they feel competent in performing the aspects of their work with the statement on a likert scale of 1-5 where, 1= Competent to a minimal extent, 2= Competent to a small extent, 3= Competent to some extent, 4= Competent to a great extent and 5= Competent to a very great extent. Findings were presented in Table 8:

Table 8: Teachers Perception of their own Competence

Statements	**Competent to a minimal extent**		**Competent to a small extent**		**Competent to some extent**		**Competent to a great extent**		**Competent to a very great extent**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**
Preparation of schemes of work and use	9	7.8	9	7.8	34	29.6	9	7.8	54	47.0
Preparation of lesson plans and use	12	10.4	30	26.1	21	18.3	33	28.7	19	16.5

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Classroom management	9	7.8	12	10.4	27	23.5	21	18.3	46	40.0
Teaching/learning	9	7.8	6	5.2	21	18.3	15	13.0	64	55.7
Arriving on time for lessons	9	7.8	9	7.8	9	7.8	24	20.9	64	55.7
Staying until the lesson is entirely over	18	15.7	6	5.2	6	5.2	18	15.7	67	58.3
Assessment of students during teaching	9	7.8	9	7.8	6	5.2	18	15.7	73	63.5
Marking students' work and giving feedback	9	7.8	9	7.8	12	10.4	9	7.8	76	66.1
Availability to students outside class	9	7.8	18	15.7	24	20.9	21	18.3	43	37.4
Involvement in co-curricular, guidance & counselling	12	10.4	12	10.4	12	10.4	15	13.0	64	55.7

Source: Field Data, 2024

In Table 8, data indicate that **quality circles have positively influenced teacher competency,** particularly in areas such as teaching practices (55.7% highly competent), punctuality (55.7%), student assessment (63.5%), and feedback provision (63.5%). These competencies reflect the core elements of instructional effectiveness that align with **Deming's TQM principle of continuous improvement** (Arunachalam & Palanichamy, 2021). Classroom management also recorded a strong performance, with 40.0% of teachers reporting high competence and 23.5% competent to some extent. Teachers credited regular peer discussions and self-assessment sessions within quality circles for this improvement. One teacher remarked: "Our principal encourages regular quality circle meetings where we reflect on what worked and what didn't. It helps us support each other and improve lesson delivery." Similarly, principals noted a shift in teacher mindset toward collective responsibility: "Through quality circles, teachers feel more responsible and involved. They no longer wait for top-down directives; they initiate changes collectively". *(Principal 3, personal communication, September 2024).*

Despite these strengths, notable gaps were observed. For instance, **only 15.7%** of teachers felt highly competent in **remaining**

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

until the lesson ends, with another 15.7% reporting only **minimal competence.** Similarly, teacher availability for student consultation outside class remained moderate, with just 37.4% rating themselves highly competent, suggesting **challenges in time management or workload** that limit extended student support. Additionally, **26.1%** of teachers rated themselves as only slightly competent in overall quality circle practices. This variability indicates that while some educators fully engage with the process, others may lack the same level of participation or benefit. Factors such as school culture, leadership style, or teacher motivation could influence these disparities, warranting further investigation.

These findings reinforce that quality circles serve not as a one-size-fits-all solution, but as a flexible framework whose **effectiveness depends on contextual implementation** and staff buy-in. As Deming (1991) emphasized, quality improvement in any system requires **participation at all levels**, iterative feedback, and support structures to sustain change. The presence of significant gains in key teaching practices supports this claim. However, persistent weaknesses in areas such as lesson completion and availability for consultation reveal **partial implementation or uneven internalization** of TQM principles across schools. Overall, the study confirms that **principals' facilitation of quality circles promotes a culture of collaborative problem-solving, continuous feedback, and professional accountability.** However, to optimize outcomes, schools must address gaps in consistency, provide differentiated support for less-engaged teachers, and institutionalize follow-up mechanisms that reinforce full-cycle implementation of quality improvement initiatives.

Students were further required to select the extent to which they agreed or disagreed with the statement on a 5-point Likert scale, where 5 = Very Influential, 4 = Influential, 3 = Neutral, 2 = Not Influential, and 1 = Do not know. Findings are presented in Table 9:

Table 9: Measures of Teacher Competence by Students

Statements	Very Influential		Influential		Neutral		Not Influential		Do not know	
	F	%	F	%	F	%	F	%	F	%
Teacher competence in handling the subject areas	186	29.5	255	40.5	52	8.3	98	15.6	39	6.2
The teacher discusses students' progress and provides comprehensive feedback	325	51.6	184	29.2	81	12.9	20	3.2	20	3.2
Teachers cover all learning areas	122	19.4	266	42.2	71	11.3	111	17.6	60	9.5

Students are exposed to practical lessons	324	51.4	64	10.2	60	9.5	96	15.2	86	13.7

Source: Field Data, 2024

The study revealed that teacher competence was widely acknowledged by students as a key driver of academic success. Specifically, 40.5% of students viewed it as having a substantial influence, while 29.6% considered it influential. However, some uncertainty remained, with a combined 30.1% of respondents either neutral, unsure, or viewing it as not influential. These variations suggest disparities in the quality of instruction across schools. This aligns with Darling-Hammond (2017), who emphasized that teacher qualifications and continuous professional development are critical to improved learner outcomes. Feedback and progress discussions also emerged as influential, with a total of 80.8% of students rating them positively. However, 12.9% remained neutral, and 6.4% either dismissed their influence or were uncertain. These findings reinforce Hattie and Timperley's (2007) assertion that effective feedback promotes student understanding and achievement though the varying responses point to inconsistent application.

On curriculum coverage, 42.2% of students emphasized its importance, while nearly 38.4% expressed neutrality, uncertainty, or disagreement. This could indicate instructional gaps or varying levels of content engagement. According to Karimah and Arifin (2023), well-structured, complete curricula are essential for academic success.Practical lessons were valued by 51.4% of students as very influential. Still, about 38.6% of learners were neutral, unaware of their benefit, or deemed them less useful suggesting unequal access to experiential learning. Karimi (2016) supports hands-on learning as vital for improving retention and engagement, especially in science and technical subjects. The findings confirm that teacher competence, feedback, curriculum coverage, and practical engagement are key to student success. However, the presence of neutral and negative responses suggests inconsistencies that must be addressed through targeted teacher training, improved instructional planning, and equitable resource distribution. These results support Littlejohn's (2001) systems theory, highlighting the interconnectedness of teaching quality, student engagement, and systemic performance in education. The researcher sought to investigate whether teachers support the learner and how this affects their academic performance in the KCSE. The findings are displayed in Table 10.

Table 10

Teachers views on the frequency with which Quality Assurance officers come to support them

Statements	Once per term		Twice per term		Once per year		Never	
	F	%	F	%	F	%	F	%

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

How often do quality assurance and standards officers from the Ministry of Education observe teachers' lessons	48	4 1 . 7	18	1 5 . 7	30	26. 1	1 9	1 6 . 5

Source: Researcher, Field Data, 2024

The study revealed **significant inconsistencies** in the frequency of lesson observations conducted by Quality Assurance and Standards Officers across public secondary schools in Mvita Sub-County. About **42%** of teachers reported that lesson observations occurred **once per term**, reflecting a modest level of regular oversight. A smaller group, **16%**, noted that observations happened **twice per term**, suggesting a stronger commitment to instructional monitoring in some schools. However, **over 25%** stated that they were observed only **once per year,** and alarmingly, **about 17%** had **never been observed.**

These disparities suggest that while some schools are maintaining regular supervision, others lack consistent structures to support teaching improvement. Interview responses confirmed these trends. One principal admitted, *"Due to heavy workloads, we rarely conduct classroom observations as frequently as needed."* A teacher echoed this, saying, *"We're mostly observed when inspectors are around. It's not part of ongoing professional development."*

Review of observation logs further confirmed this inconsistency. Some schools lacked structured timetables for supervision, while others used outdated forms or failed to record post-observation feedback. This situation aligns with **Barber and Mourshed (2021),** who argue that **effective, regular lesson observations** are essential for improving instructional quality. Without this, opportunities for teacher growth and student academic success especially in KCSE remain limited.

The researcher further investigated whether teachers make up for lessons and how this influences students' academic performance in the KCSE in public secondary schools in Mvita sub-county.

Table 11 presents the findings:

Table 11: Teachers Views on the extent to which they attended Make up Lessons

Statements	To a very great extent		To a great extent		To a moderate extent		To a little extent		To no extent	
	F	%	F	%	F	%	F	%	F	%
To what extent would teachers rate the implementation of recommendations from quality assurance and standards officers	39	33.9	30	26.1	21	18.3	15	13.0	10	8.7

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Source: Field Data, 2024

The results in Table 11 revealed that 33.9% (39 teachers) implement QASO recommendations to a very great extent, while 26.1% (30 teachers) do so to a great extent. This suggests that a majority (60%) of teachers actively implement these recommendations, which may contribute to improved teaching quality and better academic outcomes. However, 18.3% (21 teachers) implement the recommendations to a moderate extent, indicating some level of adoption but with potential gaps in consistency. Additionally, 13.0% (15 teachers) follow them to a little extent, and 8.7% (10 teachers) do not implement them at all, highlighting challenges in compliance that could negatively impact instructional quality.

These results indicate that while many teachers recognize the importance of QASO (Quality Assurance and Standards Officers) recommendations, a significant proportion do not fully implement them, which may affect students' performance in the KCSE. This was evident in the qualitative responses from several participants. One teacher stated, “Teacher are always receiving the QASO reports, but the follow-up is rarely done unless there’s a major issue flagged." Another commented, "Some of the recommendations are good, but due to lack of resources or time, we often shelve them." A principal acknowledged the gap, saying, "There is a disconnect between what QASO officers recommend and what schools are realistically able to do especially when those recommendations require more personnel or infrastructure." Document analysis revealed that although most schools had QASO reports filed, evidence of action plans or follow-up meetings based on those reports was inconsistent. In some schools, implementation logs were incomplete or absent, further confirming the partial uptake of QASO directives. The results are displayed in Table 12:

Table 12: Teachers views on the Leadership of School Principals

STATEMENTS	Very High		High		Moderate		Low		Very Low	
	F	%	F	%	F	%	F	%	F	%
Implementing existing policies	48	41.7	24	20.9	12	10.4	16	13.9	15	13.0
Provision of resources and infrastructure	36	31.3	18	15.7	33	28.7	12	10.4	16	13.9
Collective decision making	42	36.5	24	20.9	15	13.0	16	13.9	18	15.7
Empowering, facilitating, and motivating staff and students	52	45.2	18	15.7	15	13.0	18	15.7	12	10.4
Setting up actions/score cards for every staff member to improve students' performance	39	33.9	39	33.9	15	13.0	13	11.3	9	7.9

Source: Field Data (2024)

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

The findings indicated that among the leadership practices assessed, **empowering, facilitating, and motivating staff and students** emerged as the most highly rated. Nearly half of the teachers rated this practice as "very high," reflecting a strong emphasis by school leaders on staff encouragement and student support. Likewise, a significant proportion of teachers assessed the actualization of existing policies favorably, with a sizeable theme mentioning the lack of consistency in policy enforcement, referencing a lack of consistency in its application across schools. Decision-making was also collective whereby most of the teachers realized the participatory approach to leadership.Yet, the comments of others showed that not all schools adequately involve all stakeholders, pointing to a need to incorporate more inclusive decision-making mechanisms. Teacher ratings portrayed a mixed situation regarding the provision of resources, with some schools receiving sufficient provision, and others experiencing infrastructure and resource constraints, which could impact the delivery of academic material.

Establishing action plans and performance scorecards were also widely acknowledged as effective leadership practices. Teachers noted that these tools assisted in establishing expectations and monitoring progress, consistent with Total Quality Management principles. These quantitative findings were supported by interview data. One principal mentioned, I establish clear academic goals and track them. That keeps everyone on their toes and inspired." Another replied, teachers are empowered by being given proper teaching materials. Its management is progressive." These are leadership comments that correspond to effective school improvement behaviors. On the other hand, a few respondents raised the issue of minimal teacher participation in decision-making. A principal admitted, "Decisions are commonly made without teacher input. They are merely told to enforce policies." The other identified discontinuity in rule enforcement, implying that leadership credibility was being diminished by favoritism or vague policies.

These results align with those of Leithwood et al. (2020), who contend that leadership is critical in building a common vision, ensuring school-wide accountability, and creating a learning-friendly culture. Mvita Sub-County schools with inclusive and proactive leadership were more likely to report higher student outcomes than schools with hierarchical or inconsistent leadership styles. The study also revealed that schools in which the quality circles met regularly with department heads, teachers, and in some cases, student leaders could better utilize performance data to detect learning gaps and make timely responses. One principal described it this way: When we sit down as a team, each department looks back on what it can do to enhance student outcomes. It creates a sense of ownership." These results align with those of Oketch and Rolleston (2016), who concluded that participatory leadership is effective in improving curriculum implementation and academic results. The study also found that active TQM in schools with organized teamwork resulted in better internal evaluations and higher results in KCSE compared to the schools lacking such tools.

Conclusion and Recommendation

The study deduced that proper application of Quality Circles by school principals would greatly improve the

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

academic performance of students by fostering lesson regularity, teacher responsibility, and a harmonized learning environment. Nevertheless, to achieve their full potential, continuous enhancements must be made in teacher support, quality assurance, and consistent policy enforcement. In response to this, school principals are advised to institutionalize Quality Circles as institutionalized meetings that are conducted at least twice a month or every month to engage in collaborative problem-solving and pedagogical enhancement. Teachers, students, non-teaching staff, and parents should be included in these circles to encourage inclusivity and ownership. The Ministry of Education needs to back this initiative by developing clear policies requiring the use of Quality Circles in our public secondary schools. It must also invest adequately and offer specific training to school leaders to build implementation capacity.

Teachers are encouraged to discuss and report practices in these forums, and PTAs can enhance community engagement. Resolutions must be written down and followed up on to maintain accountability. Therefore, effective integration of Quality Circles demands dedicated efforts by all stakeholders to inculcate the principles of Total Quality Management into the operational culture of the public secondary schools within Mvita Sub-County.

Reference

Barber, M., & Mourshed, M. (2021). *How the world's best-performing school systems come out on top*. McKinsey & Company.

Creswell, J. W., & Clark, V. L. P. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE Publications.

Daft, R. L., & Marcic, D. (2006). *Understanding management* (5th ed.). South-Western College Publishing.

Deming, W. E. (1991). *Out of the crisis*. MIT Press.

George-Dorel, P. (2022). Management: Basic principles and techniques. *Management Strategies Journal*, *56*(2), 148–154.

Gitonga, M. (2021). *The role of total quality management in enhancing education performance in Kenya*. Kenyatta University Press.

Gök, E. B., & Özçertin, S. (2022). The effect of total quality management skills on educational institutions according to the views of university students. *European Journal of Education Studies*, *9*(2). https://www.oapub.org/edu/index.php/ejes/article/view/4200

Gopi, S., Sathya, A., & Suresh, A. (2019). Role of quality circles & total quality management practices in Indian public sector industry. *International Journal of Recent Technology and Engineering*, *8*(2), 2277–3878.

Gupta, S. (2018). *Total quality management in education*. Discovery Publishing House.

Kaiseroglou, N., Sfakianaki, E., & Koemtzi, M. (2023). Impact of teachers' demographics on total quality management parameters: The case of primary education. *Education Sciences*, *13*, 679. https://doi.org/10.3390/educsci13070679

Karima, U., Rujdy, S. A., Mutiara, D., & Irfan, A. (2023). The implementation of total quality management in the post-pandemic instructional development: A case study at SMA Muhammadiyah 25 South Tangerang. *International Journal of Educational Research and Social*

THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
A.M.E.C.E.A
Consecrate them in the Truth

Sciences, 4(2), 465–471. https://doi.org/10.51601/ijersc.v4i2.631

Karimi, R. M. (2016). *Influence of total quality management principles on performance of public secondary schools in Kajiado North Sub-County, Kenya* (Master's thesis, University of Nairobi). http://erepository.uonbi.ac.ke:8080/xmlui/handle/11295/98813

Karingu, W. M. (2025). *Communication culture and customer satisfaction in public secondary schools in Nairobi County, Kenya* (Doctoral dissertation).

Kavutai, M. (2021). *Effects of total quality management practices on performance of public secondary schools in Makueni, Kenya* (Master's thesis, University of South Eastern Kenya).

Khasanah, U., Riyantol, Y., & Setyowati, S. (2023). Total quality management (TQM) in education: School quality management for quality educational services at senior high schools. *SAR Journal, 6*(3), 211–216.

Khurniawan, A. W., Sailah, I., Muljono, P., Indriyanto, B. M., & Syamsul, M. (2020). An analysis of implementing total quality management in education: Success and challenging factors. *International Journal of Learning and Development, 10*(2), 1–15. https://doi.org/10.5296/ijld.v10i2.17270

Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership. *School Leadership & Management, 40*(1), 5–17. https://doi.org/10.1080/13632434.2019.1596077

Lesi, E., & Kaegon, S. (2020). Achieving continuous improvement in quality service of secondary schools through lifelong learning for the attainment of sustainable development goals. *International Journal of Academic Research and Reflection, 8*(5), 1– 12.

Ministry of Education. (2022). *Education sector report 2021/2022*. Government of Kenya.

Nyongesa, W. J. (2007). *Educational organization and management*. Jomo Kenyatta Foundation.

Onyali, L. C., Nnebedum, C., & Ejesi, N. (2020). Principals' application of total quality management practices for enhancing teachers' effectiveness in secondary schools in Anambra State, Nigeria. *National Journal of Educational Leadership, 5*(2), 1–12.

Rexhepi, G. (2018). The role of benchmarking in total quality management. *European Journal of Education Studies, 4*(11), 102–112. https://doi.org/10.5281/zenodo.1435865

Singh, S. (2021). *Total quality management in higher education: A soft factor approach based on faculty satisfaction* (Master's thesis, North Dakota State University).

Teachers Service Commission. (2021). *Annual teacher performance appraisal and development report*. TSC.

UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. United Nations Educational, Scientific and Cultural Organization.

Winn, B. A. (1998). The limitations of total quality management for strategic organizational change. *The Academy of Management Executive, 12*(3), 34–41. https://doi.org/10.5465/AME.1998.1109056.