Contribution of Heads of Schools Classroom Visits to Enhancing Teachers' Instructional Practices in Teaching and Learning Mathematics Subject in Public Secondary Schools in Siha District, Tanzania

Frida T. Kalanga*, Muteti Catherine, Mushi Lidya
Mwenge Catholic University, Tanzania
*Corresponding Author Email: kalangafrida@gmail.com

Abstract

This study examined the contribution of Heads of Schools' classroom visits to enhancing teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania. Guided by Instructional Leadership Theory developed by Hallinger and Murphy (1985), the study employed a convergent mixed-methods design. The target population comprised 4,059 participants, including 19 Heads of Schools, 38 Mathematics teachers, and 4,002 students. A sample of 414 participants was selected, comprising 5 Heads of Schools, 10 Mathematics teachers, and 399 students. Data were collected through questionnaires, interviews, and document analysis. Quantitative data were analyzed using descriptive statistics, while qualitative data were analyzed thematically. The quantitative instrument demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.80, while triangulation enhanced the trustworthiness of qualitative findings. The findings indicated that classroom visits made a moderate contribution to enhancing teachers' instructional practices by providing professional support, strengthening instructional accountability, motivating teachers, and promoting classroom discipline. However, their effectiveness was constrained by irregular visits, limited follow-up, and inadequate constructive feedback. The study concluded that regular, well-planned classroom visits, supported by professional guidance, mentoring, and follow-up, are essential for strengthening instructional practices. It recommends that Heads of Schools institutionalize regular classroom visits and provide timely feedback to improve lesson preparation, classroom management, and student engagement.

Keywords: Contribution, Heads of Schools, classroom Visits, Teachers' Instructional Practices, Mathematics

1. Introduction

Effective teaching is central to improving students' learning outcomes, particularly in Mathematics, which plays an important role in developing logical reasoning, problem-solving, quantitative skills, and competencies required for science, technology, engineering, and Mathematics (STEM)-related fields. However, effective Mathematics teaching depends not only on teachers' subject-matter knowledge but also on the quality of their instructional practices, including lesson preparation, pedagogical approaches, classroom management, learner engagement, assessment, and the effective use of teaching and learning resources. In this regard, instructional leadership at the school level is important because heads of schools can create conditions that support teachers' continuous improvement and strengthen the quality of classroom instruction.

Classroom visits constitute an important strategy through which heads of schools exercise instructional supervision. Through systematic classroom observation, heads of schools can obtain direct information about teaching and learning processes, identify teachers' instructional needs, provide professional guidance, offer constructive feedback, and monitor the implementation of curriculum and instructional programs. Such practices can support teachers in improving lesson preparation, pedagogical approaches, classroom management, learner engagement, and the effective use of teaching and learning resources (Kumonya, 2025; Logatus, 2022; Özdemir et al., 2024). Regular and supportive classroom visits may also encourage reflective teaching, promote teachers' professional development, strengthen curriculum implementation, and improve students' learning experiences (Litke et al., 2024; Salaganda et al., 2024). Consistent with this perspective, Owan and Bassey (2022) argue that effective instructional supervision by school leaders contributes to teachers' professional competence and classroom practices. Similarly, Musa and Ibrahim (2023) report that supportive classroom visits and feedback can enhance teachers' confidence and motivation while strengthening instructional practices.

The contribution of classroom visits, however, depends on the manner in which they are implemented. Classroom observation that is conducted merely for administrative compliance may have limited influence on teachers' instructional practices. In contrast, visits accompanied by constructive feedback, mentoring, professional guidance, and follow-up discussions can provide teachers with opportunities to reflect on their instructional practices and address identified challenges. Consequently, classroom visits should be viewed not only as mechanisms of monitoring and accountability but also as opportunities for professional learning and instructional improvement.

The role of instructional leadership is particularly important in Mathematics education. Despite the importance of Mathematics in developing critical thinking and supporting participation in STEM-related fields, students' achievement in the subject remains a concern in many educational contexts, including Tanzania, (Kikomeko, 2024). In the Tanzanian education system, heads of schools have responsibilities for supervising teaching and learning, monitoring teachers' instructional practices, and supporting teachers' professional development. Classroom visits therefore provide an important mechanism through which heads of schools can engage directly with classroom instruction and provide professional support to teachers. However, the existence of this responsibility does not necessarily guarantee that classroom visits are conducted regularly, followed by constructive feedback, or translated into meaningful improvements in teachers' instructional practices.

National examination data further demonstrate the continuing challenge of Mathematics achievement in Tanzania. Basic Mathematics performance remained relatively low between 2020 and 2025. The national pass rate declined from 20.12% in 2020 to 19.54% in 2021, before increasing to 25.42% in 2023, remaining almost unchanged at 25.35% in 2024, and rising slightly to 26.45% in 2025 (NECTA, 2024, 2025). Thus, despite some improvement, approximately 73.55% of candidates did not attain a pass in Mathematics in 2025. These results should not be attributed to instructional supervision alone because students' achievement is influenced by multiple factors. Nevertheless, the persistent challenge provides a strong rationale for examining school-level instructional practices and leadership processes that may support improvement in Mathematics teaching and learning.

The situation is also relevant in Siha District, Kilimanjaro Region. District-level examination records indicate that the Mathematics pass rate in the district increased from 15.2% in 2020 to 17.8% in 2021, 19.4% in 2022, 24.1% in 2023, and 34.8% in 2024, before declining to 31.2% in 2025 (Siha District Secondary Education Office, 2023; NECTA, 2024, 2025). Although the overall trend indicates considerable improvement between 2020 and 2024, the decline recorded in 2025 and the continued proportion of students who did not pass suggest that Mathematics achievement remains an important educational concern in the district. The pattern therefore raises questions about the instructional conditions and school-level practices that support teachers in improving Mathematics teaching.

Poor achievement in Mathematics has implications beyond examination performance. Limited mastery of foundational Mathematical competencies may constrain students' progression into competitive STEM-related programs and subsequently affect the development of human capital required in critical sectors such as medicine, engineering, and information technology (Akudugu & Abagale, 2024). At the national level, strengthening Mathematics education is therefore important for developing a skilled workforce capable of contributing to Tanzania's social and economic development agenda (URT, 2023). Improving teachers' instructional practices is consequently an important component of efforts to address persistent challenges in Mathematics education.

One potentially important avenue for strengthening such practices is instructional supervision through classroom visits. When classroom visits are conducted systematically and supported by professional guidance, teachers may be encouraged to adopt appropriate and innovative pedagogical approaches, improve classroom management, engage learners more actively, and reflect on their teaching practices. Since Mathematics requires learners to develop conceptual understanding, logical reasoning, and problem-solving abilities, the quality of classroom instruction is particularly important (Smith, 2023). Heads of schools can contribute to this process by observing classroom practices and using evidence from the observations to provide teachers with relevant professional support.

Despite the recognized importance of instructional supervision, limited empirical evidence is available on the specific contribution of heads of schools' classroom visits to Mathematics teachers' instructional practices in public secondary schools in Siha District. Existing studies have examined instructional supervision and teachers' professional practices in other contexts (Jumanne & Said, 2023; Komba & Selemani, 2024), but the extent to which classroom visits contribute to instructional improvement through professional guidance, mentoring, feedback, and follow-up remains insufficiently understood in Siha District. This represents an important empirical gap because the mere occurrence of classroom visits does not establish their contribution to teachers' instructional practices.

Accordingly, this study examined the contribution of heads of schools' classroom visits to enhancing teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania. The study focused on the extent to which classroom visits provided opportunities for instructional supervision, professional support, mentoring, feedback, and follow-up aimed at strengthening Mathematics teachers' classroom practices. The findings were expected to contribute to the evidence base on instructional leadership and inform efforts to strengthen school-based instructional supervision and Mathematics teaching in Tanzanian public secondary schools.

2. Statement of the Problem

Mathematics achievement remains a concern in Tanzanian public secondary schools. In Siha District, the pass rate increased from 15.2% in 2020 to 34.8% in 2024 but declined to 31.2% in 2025 (NECTA, 2024, 2025), indicating persistent inconsistency in students' achievement. This is concerning because Mathematics is essential for students' academic progression and the development of STEM-related competencies (Kija & Mosha, 2024; Sokoine & Paulo, 2025). Classroom visits by heads of schools can support teachers through instructional observation, professional guidance, mentoring, feedback, and follow-up. However, their contribution to Mathematics teachers' instructional practices depends on how regularly and effectively they are implemented. Although studies have examined instructional supervision and teachers' professional practices in Tanzania (Jumanne & Said, 2023; Komba & Selemani, 2024), limited evidence exists on the specific contribution of heads of schools' classroom visits to Mathematics teachers' instructional practices in Siha District. This empirical gap prompted the present study to examine how classroom visits contribute to teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania.

3.Research Question

The study was guided by the following research question:

1. To what extent do heads of schools' classroom visits contribute to enhancing teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania?

4. Significance of the Study

This study contributed to the literature on instructional leadership and teachers' instructional practices in Tanzanian public secondary schools. Its findings provided empirical evidence on the contribution of classroom visits by heads of schools to Mathematics teachers' professional and instructional practices, particularly through supervision, professional guidance, mentoring, feedback, and follow-up. The findings may assist heads of schools and education authorities in strengthening school-based instructional supervision and designing professional development activities that respond to teachers' instructional needs. At the policy level, the findings may inform the Ministry of Education, Science and Technology, the National Examinations Council of Tanzania, and local education authorities in strengthening approaches to instructional supervision and school leadership. The study also extends the application of Instructional Leadership Theory to the Tanzanian context by demonstrating the relevance of classroom-based instructional supervision to teachers' instructional practices in Mathematics.

5. Theoretical Framework

This study was guided by the Instructional Leadership Theory developed by Hallinger and Murphy (1985), which emphasizes school leaders' direct involvement in improving teaching and learning. The theory identifies three key dimensions of instructional leadership: defining the school's mission, managing the instructional program me, and promoting a positive school learning climate.

The theory worked for the researcher by providing a framework for examining how Heads of Schools' instructional leadership practices contributed to teachers' instructional practices in Mathematics**.** Specifically, the researcher used the theory to guide the investigation of classroom visits, supervision of teaching, monitoring of lesson preparation and students' work, provision of teaching and learning resources, teacher support, and professional development. The theory helped the researcher assess whether Heads of Schools were actively involved in instructional matters rather than concentrating only on administrative responsibilities. It also guided the interpretation of findings by showing how effective instructional leadership practices could support teachers in improving lesson preparation, classroom management, teaching methods, and students' engagement in Mathematics learning. In this study, classroom visits were therefore conceptualized as an instructional leadership practice through which heads of schools could support teachers' lesson preparation, pedagogical practices, classroom management, learner engagement, and use of teaching and learning resources

The theory further suggests that classroom observation is more likely to contribute to instructional improvement when accompanied by constructive feedback, professional dialogue, and follow-up. However, its emphasis on school leaders may give less attention to contextual factors such as resource availability, teacher motivation, workload, and school culture that can influence instructional practices. Despite this limitation, the theory provides an appropriate lens for examining how heads of schools' classroom visits contribute to Mathematics teachers' instructional practices in public secondary schools in Siha District.

6. Review of Empirical Studies

Classroom visits are widely recognized as an important component of instructional leadership through which heads of schools monitor teaching, provide professional support, and promote improvement in teachers' instructional practices. Empirical studies have examined classroom observation, instructional supervision, and teachers' instructional practices across different educational contexts. However, their findings, methodological approaches, and contextual emphases vary, particularly regarding the specific contribution of classroom visits to Mathematics teachers' instructional practices.

Bellibaş (2023) examined the relationship between heads of schools' classroom observations and teachers' instructional practices in Turkey using a quantitative correlational design based on OECD TALIS 2018 data. Using standardized questionnaires and Structural Equation Modelling, the study found a small but significant relationship between classroom observation feedback and teachers' instructional practices, with teacher self-efficacy mediating the relationship. Although the study provides evidence that feedback following classroom observation can support instructional improvement, its reliance on secondary, self-reported data limits direct assessment of classroom practices. Moreover, the study did not specifically focus on Mathematics teachers or rural public secondary schools. Thus, its findings provide limited evidence about how classroom visits contribute to Mathematics instruction in the Tanzanian rural school context.

Similarly, Yosief (2022) investigated the influence of head teachers' classroom visitation on students' learning in Eritrea using a mixed-methods concurrent triangulation design. The study reported that classroom visitation was relevant to students' learning; however, its primary focus was student learning outcomes rather than teachers' instructional practices. The study also differed from the present study in context, as it was conducted in public junior schools in an urban setting in Eritrea. Consequently, its findings may not adequately explain the contribution of classroom visits to teachers' instructional practices in rural public secondary schools in Tanzania. The present study therefore extends this line of inquiry by focusing specifically on teachers' instructional practices in Mathematics and by incorporating questionnaires, interviews, and document analysis to obtain complementary evidence.

Arakaza (2021) investigated instructional practices among secondary school Mathematics teachers in Rwanda using a convergent mixed-methods approach within a pragmatist paradigm. Data were collected through questionnaires, classroom observations, and interviews, enabling methodological triangulation. The study provides relevant evidence concerning Mathematics teachers' instructional practices; however, its primary focus was teachers' practices rather than the supervisory contribution of heads of schools through classroom visits. In addition, differences in educational administration and instructional supervision between Rwanda and Tanzania limit the direct applicability of the findings to public secondary schools in Siha District. The present study consequently focuses specifically on the relationship between heads of schools' classroom visits and Mathematics teachers' instructional practices within the Tanzanian context.

In Tanzania, Munna (2023) examined instructional leadership practices among school heads in Iringa Urban using a qualitative case study involving 36 participants from six secondary schools. Data were collected through semi-structured interviews, focus group discussions, and participant observations. The findings indicated that heads of schools played an important role in supporting teachers and managing classroom instruction, although participants differed in their understanding of instructional leadership. However, the study examined instructional leadership broadly rather than focusing specifically on classroom visits and their contribution to Mathematics teachers' instructional practices. Its urban setting and qualitative case-study design also provide limited evidence about instructional supervision in rural public secondary schools. The present study addresses this limitation by focusing specifically on classroom visits and employing a convergent mixed-methods approach to obtain both quantitative and qualitative evidence.

Further evidence from Tanzania is provided by Tarimo (2024), who examined the influence of instructional supervision on the quality of education in secondary schools in Kahama District using a convergent parallel mixed-methods design. The study involved 157 participants, including teachers, heads of schools, school board members, Ward Education Officers, and the District Education Officer. Data were collected through questionnaires, interviews, and document reviews. The findings showed that effective instructional supervision supported teachers' professional development and contributed to improved educational quality. However, instructional supervision was examined as a broad construct, making it difficult to isolate the specific contribution of classroom visits to teachers' instructional practices in Mathematics. Furthermore, the study focused on overall educational quality rather than subject-specific instructional practices. The present study therefore narrows the focus to classroom visits and Mathematics instruction in public secondary schools in Siha District.

Taken together, the reviewed studies demonstrate that classroom observation and instructional supervision can support teachers' professional development and instructional practices (Bellibaş, 2023; Munna, 2023; Tarimo, 2024). They also indicate that feedback, professional support, and school leadership are important mechanisms through which supervision may influence classroom practice. However, the literature reveals three important limitations. First, several studies have examined instructional supervision or instructional leadership as broad constructs rather than isolating classroom visits as a specific supervisory practice. Second, limited attention has been given to Mathematics teachers' instructional practices as the specific outcome of classroom visits. Third, there is limited evidence from rural public secondary schools in Tanzania, particularly Siha District. These limitations point to the need for context-specific and subject-specific evidence on how classroom visits contribute to teachers' instructional practices. The present study addressed this gap by examining the contribution of heads of schools' classroom visits to Mathematics teachers' instructional practices in public secondary schools in Siha District using a convergent mixed-methods design and evidence from questionnaires, interviews, and document analysis.

7. Demonstration of the Knowledge Gap

The reviewed studies provide evidence that instructional supervision, classroom observation, and instructional leadership can support teachers' professional development and instructional practices (Bellibaş, 2023; Yosief, 2022; Arakaza, 2021; Munna, 2023; Tarimo, 2024). Nevertheless, three gaps remain. First, most studies examined instructional supervision or instructional leadership broadly, without isolating classroom visits as a specific mechanism of instructional support. Second, limited attention has been given to the contribution of classroom visits specifically to Mathematics teachers' instructional practices, including lesson preparation, pedagogy, classroom management, learner engagement, and use of teaching and learning resources. Third, much of the available evidence comes from contexts outside rural public secondary schools in Tanzania, limiting its direct applicability to Siha District. Methodologically, previous studies have predominantly relied on either quantitative or qualitative approaches, while fewer have combined multiple sources of evidence to examine classroom visits comprehensively. The present study addressed these empirical, contextual, and methodological gaps by employing a convergent mixed-methods design and collecting evidence through questionnaires, interviews, and document analysis. The study specifically examined the contribution of heads of schools' classroom visits to teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania.

8. Methodology

The study employed a convergent mixed-methods design to examine the contribution of heads of schools' classroom visits to teachers' instructional practices in teaching and learning Mathematics in public secondary schools in Siha District, Tanzania. The study was guided by Instructional Leadership Theory developed by Hallinger and Murphy (1985). The target population comprised 4,059 participants from 19 public secondary schools, including 19 heads of schools, 38 Mathematics teachers, and 4,002 students. A sample of 414 participants was selected, comprising 5 heads of schools, 10 Mathematics teachers, and 399 students. Schools were selected through simple random sampling, students through stratified random sampling, and heads of schools and Mathematics teachers through expert purposive sampling. Data were collected using questionnaires, interview guides, and document analysis guides. The instruments

were subjected to content validation to ensure their relevance, clarity, and alignment with the study objectives. Reliability of the quantitative instruments was assessed through a pilot study using Cronbach's alpha, which yielded an overall coefficient of 0.80, indicating good internal consistency. Trustworthiness of the qualitative findings was enhanced through triangulation of interview data, document analysis, and quantitative findings. Quantitative data were analyzed using descriptive statistics, while qualitative data were analyzed thematically. The integration of quantitative and qualitative findings enabled a more comprehensive understanding of the contribution of heads of schools' classroom visits to teachers' instructional practices. Ethical principles, including informed consent, confidentiality, voluntary participation, and respect for participants' rights, were observed throughout the study.

9. Findings and Discussion

Contribution of Heads of Schools' Classroom Visits to Teachers' Instructional Practices in Mathematics. To examine the extent to which Heads of Schools' classroom visits contribute to enhancing teachers' instructional practices in the teaching and learning of Mathematics in public secondary schools in Siha District, Tanzania. Students' responses were analyzed using frequencies, percentages, and mean scores, while qualitative data from heads of schools and Mathematics teachers and evidence from document analysis were used to complement and explain the quantitative findings. Table 1 consist of responses from students on contribution of heads' of schools classroom visits in enhancing teachers' instructional practices in teaching and learning mathematics subject in public secondary schools.

Table 1

Represents Students Responses on the extent to which Heads of Schools' classroom visits contribute to enhancing teachers' instructional practices in the teaching and learning of Mathematics

	VLE		LE		ME		HE		VH		$\bar{x}$
Statements	**(f)**	**(%)**	**(f)**	**(%)**	**(f)**	**(%)**	**(f)**	**(%)**	**(f)**	**(%)**	**Mean**
My head of school visits the mathematics class during teaching and learning process	43	10.8	109	27.3	35	8.8	181	45.4	31	7.8	2.08
The presence of the head of school during Mathematics lessons increases the teacher's confidence in teaching.	121	30.3	108	27.1	64	16.0	70	17.5	36	9.0	2.48
Classroom visits by the head of school motivate my Mathematics teacher to engage students in hands-on activities for learning Mathematics.	134	33.6	118	29.6	51	12.8	56	14.0	40	10.0	2.45
The head of school inspects students' exercise books during visits to the mathematics lesson to ensure assignment are marked.	139	34.8	108	27.1	27	6.8	51	12.8	74	18.5	2.53
Classroom visits by the Heads of School ensures high students' concentration during Mathematics lesson	80	20.1	63	15.8	49	12.3	112	28.1	95	23.8	3.28
Classroom visits by the heads of school reduce Mathematics teachers' absenteeism in our school	93	23.3	62	15.5	47	11.8	90	22.6	107	26.8	3.14

The presence of the Head of School increases my interest in learning mathematics.	91	22.8	65	16.3	50	12.5	92	23.1	101	25.3	3.12
Classroom visits by the head of school ensure the availability of Mathematics teaching resources	90	22.6	43	10.8	40	10.0	113	28.3	113	28.3	3.29
Classroom visits by the head of schools have enhanced my active participation in the mathematics lesson	79	19.8	61	15.3	58	14.5	110	27.6	91	22.8	3.18
Classroom visits by the Head of School encourage my mathematics teacher to arrive on time	83	20.8	46	11.5	44	11.0	94	23.6	132	33.1	3.36
Grand mean for Students 2.89											

Source: *Field Data (2026)*
Key: (VLE = Very Low Extent, LE = Low Extent, ME = Moderate Extent, HE = High Extent, VHE = Very High Extent, f=Frequency, **%**=Percentage**)** Mean: 1.00 - 1.79 = Very Low, 1.80 - 2.59 = Low, 2.60 - 3.39 = Moderate, 3.40 - 4.19 = High, 4.20 - 5.00 = Very High as adapted from (Salim & Khorsheed, 2025). The interpretation of percentages is as follows: 1-20% = Extreme Minority, 21-40%= Minority, 41-60%= Moderate Majority, 61-80% High Majority, 81-100 Extreme Majority as adapted from (Taherdoost, 2019).

The findings in Table 1. 1ndicated that the contribution of classroom visits varied across the dimensions of teachers' instructional practices.
The strongest perceived contribution was related to teacher punctuality, with a mean of 3.36, followed by availability of Mathematics teaching resources (M = 3.29), student concentration (M = 3.28), and active student participation (M = 3.18). Classroom visits were also perceived to contribute moderately to reducing teacher absenteeism (M = 3.14) and increasing students' interest in Mathematics (M = 3.12). In contrast, relatively low contributions were reported in relation to teachers' confidence (M = 2.48), motivation to use hands-on activities (M = 2.45), inspection of students' exercise books (M = 2.53), and the frequency of classroom visits themselves (M = 2.08). The overall grand mean of 2.89 therefore suggests that classroom visits contributed moderately to teachers' instructional practices, but their implementation was not sufficiently consistent or comprehensive to produce a high level of instructional improvement.

Data in Table 1. On the classroom visits by heads of schools contributed to the availability of Mathematics teaching resources, Moderate majority (56.6%) of students rated to a high extent while a minority (33.4%) rated it to moderate extent and an extreme minority (10%) rated it to a low extent. The mean score of 3.29 indicates a moderate contribution. This finding suggests that classroom visits provide opportunities for heads of schools to identify instructional resource needs and take action to address them. The interview data provided further explanation. One head of school reported; ''the *school made efforts to maintain adequate textbooks, including a textbook to student ratio of approximately 1:1.*'' (HoS A 2nd March 2029). Another head of school explained; ''government *provision remained insufficient and that teachers consequently relied on locally improvised materials''*. (HoS B 3rd March 2026). A Mathematics teacher similarly reported; '*'although the head of school encouraged the provision of textbooks, shortages sometimes required teachers to photocopy materials*. (Mathematics teacher 2nd March 2026)

These findings indicated that classroom visits can function as a mechanism for identifying resource shortages and encouraging school-level responses. However, the contribution of classroom visits is constrained when resource shortages originated from factors beyond the control of school leadership, particularly inadequate funding and increasing student enrolment. The finding is consistent with the Instructional Leadership Theory of Hallinger and Murphy (1985), which positions school leaders as important actors in managing instructional programs and creating conditions conducive to teaching and learning. It also corresponds with Kolako (2024), who found that classroom supervision contributes to improved classroom management and the provision of learning resources, and Gatama et al. (2023), who emphasized the importance of instructional materials and teacher professional development for students' academic achievement.

Data presented in Table 1. showed students' views on the contribution of classroom visits to their concentration during Mathematics lessons. The findings indicated that a moderate majority (51.9%) of students rated as a high extent, with an extreme minority (12.3%) rated it as moderate extent and a minority (35.9%) rated it as a low extent. The mean score of 3.28 further indicated that classroom visits made a moderate contribution to students' concentration during Mathematics lessons. Qualitative evidence revealed that the effect of heads' presence in classrooms was not uniform. Some heads of schools reported; ''their *presence encouraged students to remain attentive, participate actively, and minimize disruptive behavior''*. (HoS A & B 2nd on 3rd March 2026). However, Mathematics teachers commented; '' *unexpected or intimidating visits could generate fear and anxiety among learners, thereby reducing their confidence and participation''*. (Mathematic teachers school A & B 2nd and 3rd March 2026).

These findings suggest that the contribution of classroom visits to student concentration depends partly on how the visits are conducted. Supportive and professionally oriented visits may strengthen classroom discipline and learner engagement, whereas highly evaluative or threatening approaches may have unintended negative effects. This interpretation is consistent with Hallinger and Murphy's (1985) Instructional Leadership Theory, which emphasizes the role of school leaders in creating a positive learning climate. The findings also agree with Ibrahim et al. (2023) and Mwakajitu and Lekule (2022), who reported that instructional supervision contributes to orderly learning environments and improved student engagement. Similarly, Salaganda et al. (2025) found that classroom visits strengthen instructional accountability and classroom management, while Nzayisenga and Ndagijimana (2024) reported that consistent instructional supervision contributes to improved academic achievement through enhanced teaching quality and classroom practices.

Data on table 1.1 on the role of classroom visit by the heads of schools in reducing Mathematics teacher's absenteeism, a moderate majority (49.9%) of the students rated to a high extent, while a an extreme minority (11.8%) rated as a moderate extent, and a minority 38.8% rated as a low extent. The mean score of 3.14 reflect a moderate level of agreement, suggest that classroom visits have a limited but observable effect on teacher's attendance.

Interview participants supported this findings. Heads of schools and Mathematics teachers commented; '*'regular classroom visits increased professional accountability and encouraged teachers to attend scheduled lessons and maintain instructional continuity''*. (HoS A 2nd March 26).

These findings suggest that classroom visits can strengthen teachers' adherence to professional responsibilities by increasing accountability and monitoring instructional time.

The finding is consistent with Owino and Karanja (2024), who reported that instructional supervision improves teacher attendance, strengthens professional accountability, and reduces absenteeism. From the perspective of instructional leadership, monitoring teachers' instructional responsibilities is an important component of managing the instructional programme (Hallinger & Murphy, 1985). Nevertheless, the moderate rather than high mean scores indicate that classroom visits alone may not be sufficient to address teacher absenteeism and punctuality; they need to be supported by appropriate school-level accountability and professional support mechanisms.

Data on the Table 1. Indicated that contribution of classroom visits to the inspection of students' Mathematics exercise books. A minority (31.3%) of students rated as high extent, while an extreme minority (6.8%) rated as a moderate extent and a high majority 61.9% rated as a low extent. The mean score of 2.53 indicates a low contribution of classroom visit to the inspection of student's exercise books. Interview data from heads of school confirmed ; ''*some heads of schools inspected students' exercise books to assess marking and monitor learners' progress, but others acknowledged that administrative responsibilities and time constraints made regular inspection difficult*''(HoS A 2nd March 2026). Similarly Mathematics teachers said; ''exercise *book inspection can strengthen teacher accountability, promote timely marking, and improve feedback to learners, but that the practice was not consistently implemented*''. (Mathematics teacher school A 2nd March 2026).

Document analysis provided further evidence of this weakness. Several Mathematics lesson plans were unavailable, while a number of schemes of work lacked supervisory remarks and signatures. These findings suggest that instructional monitoring was not consistently documented across the sampled schools. The average national examination performance in Mathematics across the five selected schools was also reported as Grade F, indicating persistent challenges in Mathematics teaching and learning.

The finding is consistent with Chiwamba and Sumbizi (2024), who found that inconsistent supervision of students' assessment records and exercise books reduced the effectiveness of instructional supervision in Tanzanian secondary schools. Similarly, Sugiar, Sukirman, and Sanusi (2025) reported that regular supervision and constructive feedback strengthen teachers' instructional quality and learner achievement. Within the Instructional Leadership Theory, monitoring students' work is an important component of managing the instructional programme because it provides evidence of whether teaching activities are translating into student learning (Hallinger & Murphy, 1985). The limited implementation observed in Siha District therefore represents an important area for strengthening instructional supervision.

Data on the Table 1. Indicated a contribution of classroom visits to motivating Mathematics teachers to engage students in hands on learning activities. A minority (24%) of the students rated to a high extent, while an extreme minority (12.8%) rated as a moderate extent and a high majority (63.2%) rated as low extent. The mean score of 2.45 indicated a low extent Enhance teachers instructional practices in teaching and learning Mathematics.

Qualitative findings, however, presented a somewhat different perspective. Heads of schools reported, '' *classroom visits enabled us to identify teachers' strengths and areas requiring support and to provide encouragement and professional guidance'' (*HoS A and B on 2nd and 3rd March 2026). Also one Mathematics teacher school A reported, ''receiving performance-based financial incentives linked to students' examination performance'' (Mathematics teacher school A 2nd March 2026). These findings suggest that motivational practices existed, but they were not

necessarily visible to students or directly translated into the use of hands-on instructional approaches.

The discrepancy between students' and teachers' perceptions may indicate that some leadership support occurs outside the classroom and therefore is not readily observable to students. It may also suggest that motivation does not automatically translate into particular pedagogical practices. Effective implementation of hands-on Mathematics teaching requires not only teacher motivation but also adequate instructional resources, pedagogical knowledge, time, and professional support.

The finding is nevertheless consistent with Hallinger and Wang (2021), who argued that effective instructional leadership can enhance teachers' instructional quality and student engagement through professional support and supervision. It also reinforces the central proposition of Instructional Leadership Theory that school leaders can influence instructional improvement by providing sustained guidance, monitoring, and professional support.

Data on the table 1.Indicated the contribution of heads of schools' presence to teachers' confidence during Mathematics lessons. A Minority (26.5%) of students rated to a high extent, and an extreme minority (16 %) rated as a moderate extent, and a moderate majority (57.4%) rated to as a low extent. The mean score of 2.48 indicates as a low contribution.

The qualitative findings help to explain this result. Some heads of schools reported, ''some *teachers felt comfortable when classroom observations were supportive and developmental*.''(HoS A 2nd March 2026). However, other participants said, '*'teachers sometimes experienced fear, anxiety, and pressure when heads of schools entered their classrooms, particularly during unannounced visits''* (HoS 2nd March 2026). Similarly Mathematics teacher reported, '*'supportive visits improved confidence through professional guidance and feedback, whereas surprise visits could create nervousness and stress''*. (Mathematics teacher school B on 5th March, 2026)

These findings demonstrate that classroom observation can have both developmental and evaluative effects. When teachers perceive visits as opportunities for professional learning, feedback, and support, they may become more confident and reflective. Conversely, when visits are perceived primarily as fault-finding or punitive exercises, they may generate anxiety and temporarily affect teachers' natural instructional delivery. This finding is consistent with Bellibaş (2023), who found a relationship between classroom observation feedback and teachers' instructional practices, with teacher self-efficacy playing an important mediating role. It also supports Hallinger and Murphy's (1985) emphasis on supportive instructional leadership.

Data on the Table 1. on the heads of schools rarely visit Mathematics classrooms during the teaching process a moderate majority 43.2% of students rated as a high extent, while an extreme minority (8.8%) rated as a moderate extent, and a moderate majority 48.1% rated as low extent. The low mean score of 2.08 indicated that classroom visits were not consistently implemented.

Interview findings reinforced this observation. One head of school reported, '*'I do visiting A classroom during teaching and learning of Mathematics subject very rarely for like two years now because as the head of school I have many activities based on the administration*'' (HoS A 2nd March 2026). Mathematics teachers similarly reported, '*'In my school head of school visited the classroom during my teaching of Mathematics rarely which motivate me to attend all classes''* (Mathematics teachers school B 5th March 2026)

This finding suggests that the effectiveness of classroom visits may be constrained less by their perceived importance than by their frequency, consistency, and follow-up. Irregular visits reduce opportunities for heads of schools to observe instructional practices systematically,

identify teachers' professional needs, provide timely feedback, and monitor subsequent improvement. This observation is consistent with Brasseth (2022), who found that classroom visits by heads of schools positively contribute to instructional quality over time. It also supports the argument that heads of schools need to balance administrative responsibilities with their instructional leadership role.

Open-ended Responses on Teachers' Confidence

The open-ended responses provided additional insight into how students perceived the influence of heads of schools' presence on teachers' confidence. The largest group of students, 145 (36.3%), reported that teachers appeared more confident and motivated when the head of school was present. A further 98 (24.6%) observed improved lesson preparation, 75 (18.8%) reported clearer explanation of Mathematics concepts, and 51 (12.8%) identified improvements in classroom management and student participation. Only 30 (7.5%) reported no noticeable change.These quantitative findings are supported by qualitative data obtained through interviews with Heads of Schools. The head of School A during face to face interview commented, '' *some teachers feel comfortable and confident when being observed, as they view the visits as supportive and developmental. The Head of school also acknowledged that a few teachers react negatively to classroom observations*'' (HoS A personal communication, 2nd April, 2026) Additionally Mathematics teacher from school B during Interview commented, ''*the head of school's presence during mathematics lessons* strongly *enhances my teaching confidence'' (*Mathematics teacher school B 5th March 2026

These responses suggest that, despite the low overall mean score for teacher confidence in the closed-ended item, many students observed positive changes in teachers' preparation, confidence, classroom management, and instructional delivery during classroom visits. This apparent difference may reflect the distinction between the presence of the head of school and the quality and manner of the supervisory interaction. Teachers may experience anxiety during observation while simultaneously improving their preparation and instructional effort because of the accountability associated with the visit.

Interview findings similarly revealed divergent experiences. Some Mathematics teachers described classroom visits as sources of professional support, constructive feedback, and motivation, whereas others associated surprise visits with nervousness and fear of judgment. Thus, the findings indicate that the contribution of classroom visits is strongly influenced by the relational and professional climate established by heads of schools.

10. Overall Discussion

Overall, the findings demonstrate that heads of schools' classroom visits made a moderate contribution to teachers' instructional practices in Mathematics, as reflected by the grand mean of the strongest contributions were observed in teacher punctuality, availability of instructional resources, student concentration, active participation, and reduction of teacher absenteeism. However, lower contributions were evident in the frequency of classroom visits, teachers' confidence, motivation to use hands-on activities, and inspection of students' exercise books.

The qualitative and documentary evidence suggests that these variations were largely associated with irregular classroom visits, competing administrative responsibilities, limited follow-up, resource constraints, and inconsistencies in the provision of constructive instructional

feedback. Thus, classroom visits appear to have greater potential when they are regular, supportive, developmental, and followed by professional dialogue and monitoring.

The findings broadly support Instructional Leadership Theory (Hallinger & Murphy, 1985), particularly its emphasis on managing the instructional programme and promoting a positive learning climate. They also complement empirical evidence from Chaula et al. (2024), Bush and Anania (2023), Kolako (2024), Gatama et al. (2023), Bellibaş (2023), and Salaganda et al. (2025), which demonstrates that instructional supervision, classroom observation, professional feedback, and teacher support can strengthen instructional practices. However, the present findings extend this literature by demonstrating that the contribution of classroom visits in a rural Tanzanian context is moderate rather than uniformly positive, and that their effectiveness depends substantially on implementation quality. Therefore, the findings suggest that classroom visits should not be treated merely as administrative inspection. Their value lies in their capacity to provide evidence-based professional guidance, mentoring, constructive feedback, instructional accountability, and follow-up support. Strengthening these dimensions may enable heads of schools to make classroom visits a more effective mechanism for improving Mathematics teachers' instructional practices in public secondary schools in Siha District.

11. Conclusion

The study concludes that heads of schools' classroom visits made a moderate contribution to enhancing teachers' instructional practices in the teaching and learning of Mathematics in public secondary schools in Siha District. Classroom visits contributed particularly to teacher punctuality and attendance, student concentration and participation, and the identification of instructional resource needs. However, their contribution was limited by irregular visits, competing administrative responsibilities, inadequate follow-up, limited inspection of students' work, and inconsistent provision of constructive instructional feedback.

The findings further demonstrate that the effectiveness of classroom visits depends not only on their occurrence but also on their quality and purpose. Supportive, developmental, and well-followed-up visits were more likely to promote teacher confidence, professional accountability, and instructional improvement, whereas infrequent or threatening observations could generate anxiety and limit their developmental value. Strengthening the regularity, supportive nature, feedback mechanisms, and follow-up processes associated with classroom visits is therefore essential for improving Mathematics teachers' instructional practices.

12. Recommendations for Action

The Ministry of Education, Science and Technology should strengthen guidelines for instructional supervision by establishing clear expectations for the frequency, quality, documentation, feedback, and follow-up of heads of schools' classroom visits. Heads of schools should integrate regular classroom observations into their instructional leadership responsibilities and ensure that each visit is followed by constructive professional dialogue, mentoring, and agreed follow-up actions.

School leadership should also strengthen the monitoring of lesson preparation, schemes of work, students' exercise books, classroom management, learner engagement, and the use of Mathematics teaching and learning resources. In addition, professional development programs should equip heads of schools with skills in supportive classroom observation, instructional feedback, mentoring, and evidence-based supervision.

Finally, education authorities should address the administrative workload that limits heads of schools' involvement in instructional supervision. Providing appropriate administrative support would enable heads of schools to devote sufficient time to classroom visits and follow-up activities. These measures would help shift classroom visits from predominantly monitoring-oriented activities towards sustained instructional support capable of strengthening Mathematics teachers' pedagogical practices and improving teaching and learning outcomes.

References

Akinwale, O. E., & Adebayo, T. A. (2024). Instructional leadership practices and teachers' effectiveness in secondary schools.

Arakaza, A. & Mugabo, L. R. (2021). Teachers' Practices in Teaching Mathematics in Selected Schools of Bujumbura Mairie Province in Burundi. *Rwandan Journal of Education, 5(2), 140–152.*

Bellibaş, M. Ş. (2023). Empowering principals to conduct classroom observations in a centralized education system: Does it make a difference for teacher self-efficacy and instructional practices? International Journal of Educational Management, 37(1), 85–102. https://doi.org/10.1108/IJEM-02-2022-0086

Bush, T., & Anania, D. (2023). The role of instructional leadership in improving teaching and learning in Tanzanian secondary schools. *International Journal of Educational Management, 37*(4), 789–805.

Chaula, B. A., Lawrent, G. A., & Iramba, A. (2024). Instructional leadership practices and teachers' professional competencies in Tanzanian secondary schools. *Cogent Education, 11*(1), 2362551. https://doi.org/10.1080/2331186X.2024.2362551

Chiwamba, S. V. & Sumbizi, E. J. (2024). Implementing Instructional Supervisory Responsibilities in Tanzanian Public Secondary Schools: To What Extent Do Head of Schools Perform their Duty. *Asian Journal of Education and Social*

Cogan, M. L. (1973). Clinical supervision. Houghton Mifflin.MLA Style:

Hallinger, P. & Murphy, J. (1985 -a). Assessing the instructional management behavior of principals. Elementary School Journal, 85.

Hallinger, P. & Wang, W. C. (2021). Assessing the Instructional Leadership of School Principals: A Review of Empirical Studies (2010–2020). *Educational Management Administration & Leadership, 49(5), 674–692.*

Ibrahim, M., Mwamakula, F., & Tangi, F. (2023). The practicability of instructional supervision towards improving teachers' performance in public secondary schools: The case of Misungwi District, Mwanza Region, Tanzania. Canadian Journal of Educational and Social Studies, 3(6), 110–128. https://doi.org/10.53103/cjess.v3i6.198

Jumanne, A. & Said, F. (2023). Data-Driven Decision Making in Mathematics Supervision: Impacts on Learning Outcomes. *Tanzanian Journal of Educational Leadership*, *8(1), 34–49.*

Kija, N. N., & Mosha, M. A. (2024). Parents' involvement in children's academic success: A case study of one public primary school in Dar es Salaam, Tanzania. Tanzanian Journal of Multidisciplinary Studies, 2(1).

Kikomelo, S. (2024). Exploring barriers to the implementation of problem-based learning pedagogy in ordinary secondary school mathematics in Tanzania. The Accountancy and Business Review, 16(2), 148-165.

Kolako, J. O. (2024). Principals' instructional supervision and provision of learning resources in secondary schools. *Journal of Education and Learning, 13*(4), 123–134.

Komba, G. & Selemani, H. (2024). Resource-Based Supervision in Mathematics Teaching: A Case Study of Public Secondary Schools in Kilimanjaro. *African Journal of Education and Innovation, 6(1), 55–68.*

Kudugu, M. A., & Abagale, F. K. (2024). Ethics Education in Science, Technology, Engineering and Mathematics (STEM) in Africa: A Reflection on the Successes, Failures and the Way Forward in the Era of a Global Pandemic. In E. Hildt, K. Laas, C. Miller, & E. Brey (Eds.), Building Inclusive Ethical Cultures in STEM (pp. 103–120). Springer International Publishing.

Kumonya, c. n. (2025). *principals' instructional supervisory practices on students' academic performance in mathematics in public secondary schools in kilungu sub-county, kenya* (doctoral dissertation, machakos university press).

Litke, E., Candela, A. G., Boston, M. D., & colleagues. (2024). Unraveling high-quality mathematics teaching in algebra: Insights from overlaying domain-specific and content-specific observation instruments. ZDM–Mathematics Education, 56(3). https://doi.org/10.1007/s11858-024-01606-7

Logatus, A. (2022). The role of secondary school heads' classroom visits in delivery of quality instruction in Biharamulo District, Tanzania. Journal of Education and Practice.

Ministry of Education, Science and Technology [MoEST]. (2023). Education and training policy 2014: 2023 edition. United Republic of Tanzania. Ministry of Education, Science and Technology

Munna, A. H., Amuri, N. A., Hieronimo, P., & Woiso, D. A. (2023). Modelling ecological niches of Sclerocarya birrea subspecies in Tanzania under the current and future climates. Silva Fennica, 57(3), Article 23009

Musa, A. A., & Ibrahim, M. (2023). School supervision and teachers' professional development in enhancing instructional quality.

Mwakajitu, M., & Lekule, C. (2022). Contribution of instructional supervision on teachers' professional development: A focus on public secondary schools in Rombo District, Kilimanjaro, Tanzania. *Journal of Research Innovation and Implications in Education, 6*(4),

National Examinations Council of Tanzania [NECTA], 2024)

Owan, V. J., & Bassey, B. A. (2022). Instructional supervision and teachers' classroom practices in secondary education.

Özdemir, N. (2020). How to improve teachers' instructional practices: The role of professional learning activities, classroom observation and leadership content knowledge in Turkey. *Journal of Educational Administration, 58*(6), 585–603. https://doi.org/10.1108/JEA-10-2019-0189

Philip Hallinger. (2021). *Leadership for learning: Lessons from 40 years of empirical research*. Routledge

Salaganda, G., Mwamakula, F., & Rupia, C. (2025). Contribution of heads of schools' classroom visitation practices on teachers' job performance in public secondary schools in Mbogwe, Geita – Tanzania. International Journal of Education Foundations,

Smith, J. (2023). Effective Teaching Strategies in Mathematics. *Educational Journal.*

Sokoine, E., & Paulo, H. (2025). Investigating the factors contributing to low mathematics performance in Tanzanian ordinary secondary schools. *International Journal of Research in Mathematics Education,* 3(1).

Sugiar, L., Sukirman, S., & Sanusi, S. (2025). Academic Supervision as a Strategy for Improving Teaching and Learning Quality. *International Journal of Educational Administration, Management, and Leadership*, 5(2), 31–48. https://doi.org/10.51629/ijeamal.v5i2.205

Tarimo, P. & Lekule, C. (2024*).* Effect of Instructional Supervision on Education Quality in Kahama District, Secondary Schools in Tanzania. *East African Journal of Education Studies, 7(1), 216–230.*

URT the T (2023) of the Ministry of Education, Science and Technology, Additional

Yosief, Y. T., Okemasisi, K., & Paulos, W. M. (2022). Establishing How Head Teachers' Classroom Visitation Practices Influence Students' Performance in Public Junior Schools in Keren Sub-Zone, Eritrea*.* *European Journal of Special Education Research*, *8(3).*