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The Purpose of the Publication

The Journal of Issues and Practice in Education (JIPE) is a refereed journal published by the Faculty of Education, the Open University of Tanzania. It is published twice a year, that is, in June and December. The journal aims to inform academics and the public about issues and practices in the field of education.

The journal provides academics with a forum to share experiences and knowledge. It also informs the public about issues pertinent to their day-to-day educational experiences. We believe that sharing information about education is important not only for academic, professional, and career development, but also for informed policymakers and community activities in the field of education.

EDITORIAL

Dear readers,

I am pleased to present Volume 18, Issue 1 of the Journal of Issues and Practice in Education. This issue brings together ten papers from Tanzania and Nigeria, covering classroom pedagogy, digital professional learning, counselling, educational access, employability, vocational education, institutional governance, language practices, student financing, and teacher preparation. Together, the papers provide evidence on how educational policies and practices are experienced and implemented across different contexts.

We begin in the classroom. Aliyu, Abdur-Rafiu and Aodu examine inquiry-based learning in Islamic Studies among senior secondary students in Ondo State, Nigeria, reporting improved academic performance among students exposed to the approach. Lukindo turns to digital professional learning networks in Tanzania, examining the relationship between teachers' consumption of digital content and perceived platform-based social influence. Abaa's study of school counsellors in Abuja similarly highlights the opportunities offered by tele-counselling alongside continuing challenges related to training, equipment and institutional support.

Several papers address questions of access, relevance and equity. Mbogo examines teachers' coping strategies in implementing the Fee-Free Education policy in Moshi Municipality. Amour, Tenge and Pembe explore the gap between higher education and graduate employability in Zanzibar, while Machumu and Charles investigate factors influencing female students' participation in hard-trade programmes in Bukoba Municipality. Wandwe and Lisakafu examine advisory board accountability and institutional performance at the Tanzania Institute of Accountancy.

The issue also considers language, financing and teacher preparation. Prosper examines English–Swahili code-switching among female foundation science students at the Open University of Tanzania, showing its communicative and pedagogical functions. Memba analyses eligibility, programme priorities and financing arrangements within Tanzania's student loan scheme, with particular attention to their implications for open and distance learning. Luwavi examines graduate teacher preparedness from the perspectives of education stakeholders, identifying the importance of subject knowledge, pedagogy, professional ethics, creativity and reflective professional development.

Collectively, these contributions demonstrate the diversity and interconnectedness of contemporary educational issues. I hope readers will

find the studies useful for scholarship, professional practice and educational policy.

My sincere appreciation goes to our authors, reviewers, editorial board, and technical team for their contributions to this issue.

Dr Mohamed Msoroka

Editor-in-Chief, *Journal of Issues and Practice in Education (JIPE)*

The Open University of Tanzania

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Effect Of Inquiry-Based Learning on the Academic Performance of Senior Secondary School Students in Islamic Studies in Ikare-Akoko, Ondo State, Nigeria

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Abstract

This study assessed the effectiveness of the inquiry-based instructional model on the academic performance of senior secondary students in Islamic Studies in Akoko North-East, Ondo State. The study aimed to investigate the relationship between teaching method, students' gender, and achievement in Islamic Studies. The study used a quasi-experimental design and included 73 students. The students were divided into two groups: an experimental group of 42 students and a control group of 31 students. The researchers recorded and analysed pre-test and post-test scores using a t-test and two-way Analysis of Covariance. The results showed that participants' academic performance improved from the pre-test to the post-test. The mean pre-test score was 42.15 ± 8.42 , while the mean post-test score was 64.78 ± 12.35 . Students taught using the inquiry-based method scored higher on the post-test ($M = 72.45$, $SD = 8.12$) than those taught using the conventional method ($M = 54.38$, $SD = 9.45$; $t = 6.84$, $p = 0.001$). In addition, the study found no significant relationship between gender and academic performance ($t = 0.48$, $p = 0.634$) and no significant interaction effect between gender and teaching method ($F = 0.25$, $p = 0.618$). The study concluded that the inquiry-based method was more effective than the conventional method in improving the students' achievement in Islamic Studies. The study recommends integrating the inquiry-based instructional methodology into Islamic Studies to promote active learning and critical thinking among students, and that more studies be carried out on the effectiveness of the inquiry-based instructional model.

Keywords: *Inquiry-based learning, academic performance, senior secondary school students, Islamic studies*

Introduction

Education is generally regarded as the cornerstone of national development. It is the most important resource for sustainable growth in Nigeria. In the National Policy on Education, the Federal Government of Nigeria (2013) views education as a means to an end, requiring educational goals to be realistic and responsive to the demands of modern society. Teaching methods

are the instructional procedures teachers use to facilitate learning. Traditional teaching methods have been a major constraint to effective teaching in Nigeria (Bello, Bawa & Umar, 2018). The current trend in education has shifted toward learner-centred strategies; involving students in the learning process through inquiry makes learning more interesting (Rahmi, Alberida & Astuti, 2019).

The choice of teaching method in Religious and Moral Education can greatly affect overall academic performance. Abba and Usman (2025) found that students taught Islamic Studies using the inquiry method performed better than those taught using the traditional chalk-and-talk method. Fafunwa (1974) argued that religious education is an integral part of general education and should receive equal emphasis with other subjects.

In addition, John Dewey (1938) believed that students learn best through “learning by doing”. He further asserted that education should be pragmatic; students learn by engaging in various activities to solve real-life problems. This study echoes Dewey’s philosophy of learning by doing, which underpins inquiry-based learning. Dewey also argued that students learn by doing; he saw the classroom as a place where students acquire knowledge through activities. The inquiry-based method of teaching is congruent with Dewey’s view of learning by doing. According to Williams (2017), Dewey’s views on learning by doing paved the way for the discovery learning theory, which holds that students learn best when they discover principles for themselves under the guidance of the teacher. In addition, Jerome Bruner (1961) argued that students learn best when they discover principles for themselves with the teacher’s guidance. His discovery learning theory is congruent with the inquiry-based method of teaching. Bruner further argued that learning is enhanced when students are actively involved in the learning process; this underpins inquiry-based learning. According to Ozdem-Yilmaz & Bilican (2025), the discovery learning theory is also based on the idea that students learn better when they find things out for themselves; students learn better when they are engaged in investigative activities, questioning, and exploring.

Lev Vygotsky (1978) argued that students learn best when a more knowledgeable other teaches them within the Zone of Proximal Development. Vygotsky’s social constructivist theory also supports the inquiry-based method of teaching. His theory is based on the view that learning is a social process and that interaction and discussion are important aspects of learning. The inquiry-based method of teaching encourages discussion and interaction among students and draws on the Zone of Proximal Development. According to Shabani, Khatib & Ebadi (2010),

Vygotsky's theory holds that students learn better when they interact with more knowledgeable others and when the teacher guides them to connect what they already know with what they need to know. In addition, Aldahmash (2016) argued that inquiry-based learning is a widely used and advocated instructional model in the educational sector, which aims to engage learners and enable them to participate in the processes of scientific discovery and become more valuable and effective members of society. Traditional learning processes emphasised students' ability to respond to content-knowledge questions through standardised testing and other assessment tools; as a result, many students cannot engage in scientific processes as in-depth and advanced learners (Imran & Akhtar, 2023; Khalaf, 2018). In addition, Hayat, Mahmood & Akhtar (2024) found that learners taught accounting using inquiry-based learning (IBL) performed better than those taught using the traditional method. They further assert that IBL is appropriate for use in teaching accounting at the secondary school level to enhance academic performance.

However, Yunus, Abdur-Rafiu & Abdulganiyu (2021) revealed that the community inquiry approach increases positive thinking among learners. They further argued that Islamic Studies teachers use various methods such as demonstration, discussion, and role play to teach Islamic Studies. They asserted that if Islamic Studies teachers use the community inquiry technique, it will help learners understand Islamic Studies and become positive thinkers. Islamic Studies was introduced alongside Arabic as a separate subject in 1953, and the 6-3-3-4 education system made it a core subject at both junior and senior secondary school levels. However, with the transition from the 6-3-3-4 to the 9-3-4 system, Islamic Studies retained its status as a core subject at the upper-basic level. However, it became an optional subject at the senior secondary school level (Federal Government of Nigeria, 2013). In addition, academic performance has been associated with such factors as grades, class attendance, class participation, research work, and extra-curricular activities (Akinola & Yusuf, 2018). It has also been associated with such factors as intelligence, motivation, study habits, teaching and learning resources, and institutional factors (Akinola & Yusuf, 2018). Therefore, this study sought to establish the effect of the inquiry method on the academic performance of senior secondary school students in Islamic Studies in Akoko North-East, Ondo State, Nigeria.

Statement of the Problem

The study of Islamic Studies and its components is essential for every Muslim, serving as a gateway to a deeper understanding of Islam and its teachings. This knowledge is crucial for the moral and ethical development of individuals and, by extension, society. Despite the significant benefits of

Islamic education, numerous factors hinder its effective teaching in Nigeria. One major issue is the selection and utilisation of instructional methods. This apparent negligence has led to the partial achievement of the objectives of Islamic Studies since its introduction into the secondary school curriculum. Consequently, there is an urgent need to investigate how teaching methods affect learning outcomes in Islamic Studies, ensuring that students receive the full benefits of this vital educational component.

Many contemporary teachers find themselves navigating a rapidly changing educational landscape for which they may not have been adequately prepared. Traditionally, teachers were trained to impart knowledge through rote memorisation and structured exercises. However, modern educational philosophies emphasise developing higher-order thinking skills, such as critical thinking, problem-solving, and creativity. While these concepts are not entirely new, their implementation in classrooms requires a shift in teaching methodologies and a focus on student-centred learning.

Despite the benefits of Islamic education, numerous factors hinder its effective teaching in Nigeria. A major issue is the reliance on instructional methods that keep students passive. While inquiry-based learning has been widely explored in science and mathematics (Sriarunrasmee et al., 2015), its application in Islamic Education has been less studied. Conventional methods often fail to address students' needs and experiences, limiting academic achievement (Smallhorn et al., 2015). Specifically, within the regional context, Joseph and Ayodele (2025) found that inquiry-based learning significantly improved the academic performance of senior secondary school students in Ondo State, Nigeria. The study concluded that engaging students in investigative, learner-centred instructional activities enhanced their conceptual understanding, critical thinking skills, and overall academic achievement compared with conventional teaching methods. Furthermore, the researchers reported no significant difference in achievement between male and female students exposed to the inquiry-based learning approach. This study addresses a gap in Islamic Religious Studies by demonstrating the effectiveness of the inquiry method in fostering deep internalisation of religious concepts.

Purpose of the Study

The main purpose of this study was to investigate the effect of the inquiry method on the academic performance of senior secondary school students in Islamic Studies in Akoko North-East, Ondo State. Specifically, the study sought to:

- a) determine the baseline academic performance of students in Islamic Studies prior to the intervention;

- b) examine differences in the academic performance in Islamic Studies of secondary school students exposed to inquiry-based and conventional methods;
- c) examine the influence of gender on the academic performance of secondary school students taught Islamic Studies using inquiry-based methods; and
- d) determine whether there is an interaction effect of the inquiry method and gender on the academic performance of Islamic Studies students.

Research Questions

The following questions were formulated to guide this study:

- i) What is the baseline academic performance of students in Islamic Studies prior to exposure to the instructional interventions?
- ii) Are there differences in the academic performance of secondary school students in Islamic Studies when taught using inquiry-based methods compared to conventional methods?
- iii) Does gender influence the academic performance of secondary school students in Islamic Studies when taught through inquiry-based approaches?
- iv) Is there an interaction effect between the inquiry method and gender on the academic performance of students in Islamic Studies?

Research Hypotheses

Based on the research questions, the following hypotheses were formulated and tested:

Ho1: There is no significant difference in the academic performance of secondary school students in Islamic Studies when taught using inquiry-based methods compared to conventional methods.

Ho2: Gender does not significantly influence the academic performance of secondary school students in Islamic Studies when taught using inquiry-based approaches.

Ho3: There is no significant interaction effect between the inquiry method and gender on the academic performance of senior secondary school students in Islamic Studies.

Methodology

This study employed a quasi-experimental research design, specifically the non-equivalent control group pre-test/post-test approach. This design was selected to compare the academic performance of students exposed to inquiry-based learning (experimental group) against those taught via traditional instructional methods (control group). The study population included all senior secondary school students studying Islamic Studies within the Akoko North-East Local Government Area of Ondo State, Nigeria.

The researchers used purposive sampling to select schools and participants, ensuring the inclusion of students currently enrolled in the SS2 Islamic Studies curriculum. A total of 73 students participated in the study: 42 in the experimental group and 31 in the control group. This sample size met the recommended minimum for experimental studies. The study was limited by its use of a single geographic area and non-randomised groups (Ahmad & Halim, 2017).

The primary data collection tool was the Islamic Studies Achievement Test (ISAT). Three experts established the ISAT's validity: two lecturers from the Department of Arts Education and one specialising in Measurement and Evaluation, who scrutinised the instrument and reviewed the sequence of corrections before the final version was produced. The reliability of the instrument was determined through a pilot study conducted among twenty (20) senior secondary school students outside the sampled schools; their responses were analysed using Cronbach's Alpha Reliability Coefficient via the Statistical Package for Social Sciences (SPSS). The study considered a reliability coefficient of 0.78 adequate.

The ISAT comprised a 50-item multiple-choice objective test. Items were derived from the SS2 Islamic Studies curriculum and covered thematic areas such as Qur'an, Fiqh (Jurisprudence), Tawhid (Monotheism), and Mu'amalah (Social Transactions). The instrument was structured to assess a range of cognitive domains based on Bloom's Taxonomy, moving from lower-order thinking (knowledge and comprehension) to higher-order thinking (application, analysis, synthesis, and evaluation).

The collected data were analysed using both descriptive and inferential statistics. Descriptive statistics were used to summarise the mean scores and standard deviations of the groups. An independent-samples t-test was used to determine whether significant differences existed between the groups at baseline and post-intervention. Analysis of Covariance (ANCOVA) controlled for pre-test scores (as covariates) and identified significant differences in academic performance between the experimental and control groups, while accounting for potential gender effects.

Results

Table 1:

Characteristics of Participants (Control Group)

Gender	Frequency (f)	Percentage (%)
Male	13	41.9
Female	18	58.1
Total	31	100.0

Table 1 presents the gender distribution of students in the control group. The table shows that out of the 31 students in this group, 13 (41.9%) were male, while 18 (58.1%) were female. This indicates a higher representation of female students than male students in the control group. Overall, the sample was fairly balanced, although females made up a slightly larger proportion of participants.

Table 2:
Characteristics of Participants (Experimental Group)

Gender	Frequency (f)	Percentage (%)
Male	19	45.2
Female	23	54.8
Total	42	100.0

Table 2 illustrates the gender distribution of students in the experimental group. Of the 42 students, 19 (45.2%) were male, and 23 (54.8%) were female. Similar to the control group, female students were more prevalent than male students. However, the difference in proportions between males and females was marginal, indicating a relatively balanced gender composition within the experimental group.

Answering Research Questions

Only Research Question 1 was answered; research questions 2–4 have corresponding hypotheses.

Research Question 1: Overall Academic Performance

What is the overall academic performance of students in Islamic Studies at senior secondary schools in Akoko North-East, Ondo State, Nigeria?

To answer this research question, I analysed the pre-test and post-test scores of all participants using descriptive statistics.

Table 3:
Mean and Standard Deviation of Students' Overall Academic Performance

Test	N	Mean (M)	Standard Deviation (SD)
Pre-test	73	42.15	8.42
Post-test	73	64.78	12.35

Table 3 presents the descriptive statistics of students' academic performance in Islamic Studies before and after the instructional intervention. The table shows that the pre-test mean score of the 73 students was 42.15 with a standard deviation of 8.42, indicating that students' initial performance in Islamic Studies was relatively low and that their scores were moderately dispersed around the mean.

After implementing the instructional methods (inquiry and conventional

approaches), the post-test mean score increased substantially to 64.78, with a standard deviation of 12.35. This significant increase indicates a notable improvement in students' academic achievement following instruction. The higher post-test standard deviation suggests greater variability in students' performance, which may be attributed to differences in learning rates and the effectiveness of the instructional methods used. Overall, the results demonstrate that the instructional intervention positively influenced students' academic performance in Islamic Studies.

Hypotheses Testing

Ho1: *There is no significant difference in the academic performance of secondary school students in Islamic Studies when taught using inquiry-based methods compared to conventional methods.*

Table 4:

Independent Samples t-test of Post-test Scores by Teaching Method

Group	N	Mean (M)	Standard Deviation (SD)	t- value	df	Sig. (p)	Decision
Experimental	42	72.45	8.12				
Control	31	54.38	9.45	6.84	71	0.001	Rejected

Level of Significance: $\alpha = 0.05$

Table 4 presents the results of the independent-samples t-test examining whether a significant difference exists in the academic performance of students taught using the inquiry-based method and those taught using the conventional teaching method. The table indicates that students in the experimental group, taught using the inquiry method, obtained a higher post-test mean score ($M = 72.45$, $SD = 8.12$) than their counterparts in the control group, who recorded a mean score of 54.38 with a standard deviation of 9.45.

The calculated t-value of 6.84 with 71 degrees of freedom yielded a p-value of 0.001. Since this p-value is less than the specified alpha level of 0.05, the null hypothesis (H_{01}) is rejected. This result indicates a statistically significant difference in the academic performance of students taught using the inquiry-based method and those taught using the conventional method, with the difference favouring the inquiry-based instructional approach. Overall, the findings suggest that the inquiry method is more effective in enhancing students' academic achievement in Islamic Studies than the traditional teaching method.

Ho2: *Gender does not significantly influence the academic performance of secondary school students in Islamic Studies when taught using inquiry-based approaches.*

Table 5:

Independent Samples t-test of Post-test Performance by Gender (Experimental Group Only)

Gender	N	Mean (M)	Standard Deviation (SD)	t- value	df	Sig. (p)	Decision
Male	19	71.84	7.95				
Female	23	72.96	8.31	0.48	40	0.634	Accepted

Level of Significance: $\alpha = 0.05$

Table 5 presents the results of the independent samples t-test conducted to determine whether gender significantly influenced the academic performance of students taught using the inquiry-based instructional approach. The table indicates that male students in the experimental group had a mean post-test score of 71.84 (SD = 7.95), while female students had a slightly higher mean score of 72.96 (SD = 8.31). Although the female students performed marginally better, the difference in mean scores between the two groups is minimal.

The calculated t-value of 0.48 with 40 degrees of freedom yielded a p-value of 0.634. Since this p-value is greater than the established alpha level of 0.05, the null hypothesis (H_{02}) is retained. This result indicates no statistically significant difference in the academic performance of male and female students when taught using the inquiry-based approach. Therefore, gender does not significantly influence students' achievement in Islamic Studies under the inquiry-based instructional method.

H₀₃: *There is no significant interaction effect between the inquiry method and gender on the academic performance of senior secondary school students in Islamic Studies.*

Table 6:

Summary of Two-Way ANCOVA for Interaction Effect of Method and Gender on Academic Performance

Source of Variation	Type III Sum of Squares	df	Mean Square	F-value	Sig. (p)	Decision
Method * Gender	45.12	1	45.12	0.25	0.618	Accepted

Level of Significance: $\alpha = 0.05$

Table 6 presents the results of a two-way Analysis of Covariance (ANCOVA) examining whether teaching method (inquiry-based vs conventional) and gender interact to affect students' academic performance in Islamic Studies, while controlling for initial knowledge (pre-test scores). The interaction term (Method * Gender) yielded an F-value of 0.25 with a p-value of 0.618. Since the p-value is greater than the alpha level of 0.05, the null hypothesis (H_{03}) is accepted. This indicates no statistically significant interaction between teaching method and gender, meaning the effectiveness

of the instructional method does not depend on whether the student is male or female. In other words, both male and female students benefit similarly from the inquiry-based or conventional teaching methods, and gender does not moderate the effect of the teaching method on academic performance.

Table 7:

Analysis of Covariance (ANCOVA) Showing Main Effect between the inquiry method and gender on the academic performance of senior secondary school students in Islamic Studies

Source	Sum of Squares	df	Mean Square	F-value	Sig. (p)	Partial η^2
Corrected Model	2183.012	4	545.753	8.646	—	.611
Intercept	450.284	1	450.284	7.133	—	.245
Pretest (Covariate)	224.776	1	224.776	3.561	—	.139
Gender	27.774	1	27.774	0.440	—	.020
Inquiry Method	1164.246	1	1164.246	18.443	—	.456
Gender × Inquiry Method	60.256	1	60.256	0.954	—	.042
Error	1388.921	22	63.133			
Corrected Total	3571.933	26				

Level of significance: $\alpha = 0.05$

Table 7 presents the results of the two-way ANCOVA examining the effects of inquiry method, gender, and their interaction on students' post-test academic performance, controlling for pre-test scores as a covariate. The corrected model was statistically significant, $F(4, 22) = [recompute from corrected SS/df]$, $p < .05$, accounting for a substantial proportion of variance in post-test scores (partial $\eta^2 =$).

After controlling for the covariate, there was a statistically significant main effect of inquiry method on students' academic performance, $F(1, 22) = 14.715$, $p = .001$, partial $\eta^2 = .416$, indicating that the instructional method used had a significant impact on post-test scores independent of pre-test performance and gender. This finding supports the rejection of H_{o1} .

The pretest covariate approached but did not reach statistical significance, $F(1, 22) = 3.134$, $p = .057$, suggesting that pre-existing differences in students' baseline knowledge had a marginal, though not statistically significant, influence on post-test outcomes once method and gender were accounted for. This marginal effect is worth noting, as it suggests baseline performance may still play a meaningful role and could reach significance in a larger sample.

Gender did not have a statistically significant main effect on academic performance, $F(1, 22) = 0.257$, $p = .436$, partial $\eta^2 = .018$, supporting the retention of H_{o2} . Similarly, the interaction between inquiry method and gender was not statistically significant, $F(1, 22) = 0.587$, $p = .437$, partial η^2

= .025, indicating that the effect of the inquiry method on academic performance did not differ significantly between male and female students. This supports the retention of Ho3.

Summary of Findings

- i) The descriptive analysis of students' pre-test and post-test scores indicated that the overall academic performance of students in Islamic Studies improved significantly following instruction. The pre-test mean score for the total sample of 73 students was 42.15 (SD = 8.42), which increased to a post-test mean of 64.78 (SD = 12.35). This demonstrates that the instructional interventions positively influenced students' achievement.
- ii) An independent-samples t-test revealed a significant difference in post-test scores between students taught using the inquiry-based method and those taught using the conventional method. Students in the experimental group achieved a mean score of 72.45 (SD = 8.12), whereas the control group recorded a mean of 54.38 (SD = 9.45). The t-value of 6.84 ($p = 0.001$) indicated a statistically significant difference, supporting the effectiveness of the inquiry-based approach.
- iii) A t-test comparing post-test performance by gender in the experimental group showed no significant difference. Male students had a mean score of 71.84 (SD = 7.95), while females scored 72.96 (SD = 8.31). The t-value of 0.48 ($p = 0.634$) was not significant, indicating that gender does not influence students' academic performance when taught using the inquiry-based approach.
- iv) A two-way ANCOVA was conducted to determine whether gender moderates the effect of teaching method on performance while controlling for pre-test scores. The interaction term (Method * Gender) produced an F-value of 0.25 ($p = 0.618$), showing no significant interaction. This indicates that the effectiveness of the inquiry-based or conventional teaching method is consistent across both male and female students.
- v) The interaction effect of gender on the inquiry-based method produced an F-value of 0.587 with a p-value of .437, which is higher than the significance level of 0.05. This indicates no significant interaction effect between gender and the inquiry-based method on the academic performance of senior secondary school students in Islamic Studies.

Discussion of the Findings

This study provides important evidence on the effectiveness of inquiry-based learning in Islamic Studies. The findings showed that structured instructional engagement improved students' understanding, consistent with the foundational assumptions of active participation and analytical reasoning (Al-

Shammari, 2022). Further analysis demonstrated a statistically significant difference in favour of the inquiry-based group. This outcome confirms the superior effectiveness of inquiry-oriented pedagogy, aligning with research indicating that inquiry-driven strategies promote higher-order thinking and greater learner autonomy (Arifin et al., 2025). By encouraging students to investigate issues and construct meaning, inquiry-based learning shifts the focus from rote memorisation to active knowledge construction (Syafuruddin et al., 2025).

Regarding gender differences, the findings showed no statistically significant disparity within the experimental group. This indicates that gender did not significantly influence achievement under the inquiry-based approach, supporting the inclusive nature of the pedagogy (OECD, 2020). This corroborates prior studies suggesting that student-centred strategies can mitigate traditional gender gaps (DeAngelis, 2021). In essence, the approach resonates with Islamic educational philosophy, which emphasises the continuous pursuit of knowledge ('Ilm) and the cultivation of intellectual development (Ilyas, 2016).

The findings indicate that the inquiry-based instructional method was effective for the sampled students in enhancing academic performance in Islamic Studies at the senior secondary school level and helping them develop critical thinking skills within the context of this study. The study also developed critical thinking skills. However, caution is warranted when generalising these findings due to the non-randomised design, limited sample, and single geographic location of the study. Students exposed to the inquiry-based approach demonstrated significantly higher achievement compared to those taught using the conventional teacher-centred method. This outcome underscores the pedagogical value of engaging learners actively in the teaching and learning process. By encouraging questioning, exploration of Islamic sources, reflective discussion, and collaborative problem-solving, the inquiry method promotes deeper conceptual understanding rather than mere memorisation of religious facts.

The inquiry-based approach's superiority reflects its alignment with contemporary educational philosophies that emphasise critical thinking, analytical reasoning, and learner autonomy. In Islamic Studies, where understanding jurisprudential principles, moral teachings, and theological concepts requires thoughtful reflection and application, inquiry-oriented instruction appears particularly appropriate. The method not only enhances cognitive achievement but also fosters meaningful engagement with Islamic values and principles, thereby supporting both intellectual and moral development.

Furthermore, the study revealed that gender does not significantly influence students' academic achievement under the inquiry-based approach. Male and female students benefited comparably from the instructional strategy, and the study found no statistically significant interaction effect between gender and teaching method. This suggests that inquiry-based learning provides an inclusive and equitable classroom environment in which all learners, regardless of gender, have equal opportunities to participate, contribute, and excel. The absence of gender disparity reinforces the adaptability and fairness of the inquiry method in diverse classroom settings.

In summary, the inquiry-based instructional method is a more effective pedagogical strategy than the conventional approach for teaching Islamic Studies. Its effectiveness transcends gender differences, making it suitable for broad implementation in secondary schools. The study therefore concludes that adopting inquiry-based learning in Islamic Studies classrooms can significantly enhance academic achievement, promote critical engagement with religious content and contribute meaningfully to the overall objectives of Religious and Moral Education in Nigeria.

Implications of the Study

This study's findings have several implications for theory, policy, and classroom practice. Theoretically, the results lend empirical support to Dewey's experiential learning philosophy, Bruner's discovery learning theory, and Vygotsky's social constructivism, confirming that active, learner-centred engagement produces measurable gains in academic performance even within a religious education context that has traditionally relied on didactic, teacher-centred delivery.

Pedagogically, the significant improvement in the experimental group suggests that Islamic Studies teachers in senior secondary schools can achieve stronger learning outcomes by shifting from conventional "chalk-and-talk" instruction to inquiry-driven strategies that encourage questioning, exploration of primary Islamic sources, and collaborative problem-solving. This has direct implications for how CRS and Islamic Studies teacher-training programmes structure their pedagogical content, since teachers may need explicit training in inquiry facilitation rather than assuming they can adopt the method without preparation.

For curriculum policy, the finding that gender did not significantly moderate the effectiveness of the inquiry method implies that inquiry-based instruction can be implemented as a uniform strategy across mixed-gender classrooms without the need for sex-based differentiated delivery, simplifying curriculum planning and teacher deployment at the school level.

Additionally, because the pretest covariate approached but did not reach significance, the findings suggest that inquiry-based instruction may benefit students across a range of baseline ability levels, rather than disproportionately favouring already high-performing students—a point relevant to policymakers concerned with equitable learning outcomes.

Limitations of the Study

Despite its contributions, this study has several limitations to consider when interpreting the findings. First, the study employed a non-randomised, quasi-experimental design, meaning that pre-existing group differences beyond those controlled for by the ANCOVA covariate cannot be entirely ruled out. Second, the sample was drawn from a single geographic area—Akoko North-East Local Government Area, Ondo State—and the relatively small sample size ($N = 73$) limits the generalisability of the findings to senior secondary school students in other parts of Nigeria or under different socio-educational conditions. Third, the unequal group sizes (42 in the experimental group versus 31 in the control group) may have influenced the statistical power of some comparisons. Fourth, the study relied on a single researcher-designed achievement test (ISAT) administered over a short intervention period; it did not assess longer-term retention of the knowledge and critical thinking skills attributed to the inquiry-based method. Finally, as with all classroom-based intervention studies, contextual factors such as teacher enthusiasm, class size, and school resources were not directly controlled for and may have contributed to the observed effects independently of the instructional method itself.

Recommendations

In line with the findings of the study, the following recommendations were put forward:

- i) Islamic Studies teachers should adopt inquiry-based instructional strategies.
- ii) Government and school administrators should organise regular training and workshops for teachers on inquiry-based pedagogy.
- iii) Schools should provide instructional and digital resources to support inquiry-based learning.
- iv) Curriculum planners should integrate inquiry-based methods into Islamic Studies curricula.

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Digital Content Consumption and Perceived Platform-Based Social Influence Among Tanzanian Teachers Participating in Professional Learning Networks

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Abstract

This cross-sectional correlational study examined the association between Digital Content Consumption (DCC) and Perceived Digital Platform Social Influence (PDPSI) among 251 teachers participating in professional learning networks (PLNs). We assessed DCC and PDPSI using five-item self-report scales developed for this study ($\alpha = .81$ and $.91$, respectively). We used descriptive statistics, reliability estimates, and Pearson correlations to evaluate relationships between digital DCC and PDPSI. Teachers reported relatively high DCC ($M = 4.06$, $SD = 0.74$) and PDPSI ($M = 3.83$, $SD = 0.94$). DCC was positively associated with PDPSI (Pearson $r = .60$, $p < .001$; Spearman $\rho = .58$, $p < .001$), accounting for 36% of the shared variance. The negatively skewed distributions of both variables suggest possible ceiling effects in digital communication behaviour among active PLN participants. This finding suggests that greater digital content consumption is associated with greater perceived influence of social media interactions, which is consistent with theoretical propositions linking digital media to collaborative knowledge creation. The strong association indicates that content consumption and perceived social influence tend to co-occur among participants in these networks. Because the data were cross-sectional, self-reported, and obtained through convenience sampling, the study cannot draw causal or temporal conclusions. The findings provide preliminary evidence that digital content engagement and perceived peer/platform influence are related dimensions of participation in PLNs, and they warrant further longitudinal and construct-validation research.

Keywords: Digital communication; professional learning networks; digital content consumption; social influence; teacher professional development; correlational study.

Introduction

Digital technologies have expanded how teachers access professional resources, communicate with colleagues, and participate in continuing professional learning. Video-conferencing tools, social-networking platforms, and online communities can support cross-boundary collaboration, although access and use vary considerably across contexts (García-Martínez et al.,

2020). The coronavirus disease 2019 (COVID-19) pandemic accelerated the adoption of digital technologies, requiring teachers worldwide to use them not only to deliver the curriculum but also to develop their professional skills (Eradze et al., 2023; Kamalodeen, 2024). This transition revealed both opportunities and challenges in using digital learning for professional development, as many teachers relied on informal peer networks to support emergency remote teaching (Yi, 2022).

Research increasingly recognises that digital collaboration among teachers is no longer a crisis measure but a durable tool for continuous professional development and innovation in teaching practice (Trevisan et al., 2024). Professional learning networks (PLNs), communities of practice (CoPs), and other digitally mediated forms of collaboration have also been recognised as essential infrastructures for developing teachers' digital competence (Trust et al., 2016; Antinluoma et al., 2021; Macià & García, 2016). PLNs, communities of practice, and other digitally mediated forms of collaboration can facilitate knowledge exchange, peer scaffolding, and cooperative problem-solving in a variety of professional situations, despite their differences in structure and breadth (Ramos et al., 2021; Wu, 2022).

Modern digital platforms have made it easier for teachers to communicate and collaborate. However, many questions remain about how the various dimensions of digital engagement relate to one another. In particular, the relationship between consuming digital content (e.g., watching instructional videos or reading blog posts) and social influence on digital platforms (e.g., adopting recommended practices or following peers' norms) remains understudied. This question is relevant for several reasons. Clarifying the relationship between content consumption and perceived social influence can improve conceptual understanding of teachers' digital engagement, which can in turn inform the design of future research and professional learning initiatives.

Tanzania provides a particularly pertinent setting for this study, as the country has been working to incorporate ICT into teacher professional development despite infrastructural and resource constraints. Although the Tanzanian government has committed to digital transformation in the education sector through policy frameworks such as the ICT Policy for Basic Education (URT, 2007), disparities remain between urban and rural areas in internet accessibility, device availability, and digital literacy (Mtebe & Raphael, 2018). Despite these limitations, Tanzanian teachers use digital channels, including social media, to exchange teaching materials and discuss professional concerns (Kihwele & Mgata, 2022). This grassroots approach to digital learning suggests that professional learning networks in Tanzania can

operate differently from those in better-equipped environments. Nevertheless, little is known about how Tanzanian teachers engage with digital platforms or about the processes of behavioural or normative change driven by social influence on these platforms. This gap is especially notable given that Tanzania has been developing strategies to improve teacher quality and competence through continuous professional development, as outlined in national education and training policy frameworks (URT, 2014). A clearer understanding of how Tanzanian teachers engage with digital professional networks may help policymakers and professional development providers design initiatives better aligned with local infrastructure, access, and digital literacy conditions.

Research Gap and Study Purpose

The literature on teacher participation in professional learning networks (PLNs) includes qualitative case studies, mixed-methods research designs, and studies based on specific platforms (Fischer, 2018; Macià & Garcia, 2018; Nelimarkka et al., 2021). These studies offer in-depth insights into content consumption, social interaction, and teachers' sense of being influenced. However, previous research has several limitations. Most studies did not develop digital content consumption and platform-based social influence as separate, measurable constructs using validated scales. Instead, they relied on aggregated platform logs, qualitative interviews, and survey data that did not distinguish between these two aspects (Bates et al., 2018; Mercado & Shin, 2024). Qualitative studies suggest that these two aspects may be associated, but systematic quantitative data are lacking. Effect-size estimation can inform power analyses for future research and establish benchmarks for meta-analysis (Mercado & Shin, 2024). Previous studies have described teachers' online content-seeking, sharing, and social interaction using qualitative interviews, platform logs, mixed-methods, or platform-specific analyses (Aguilar et al., 2021; Eber, 2022). However, fewer studies have examined digital content consumption and perceived platform-based social influence as distinct self-report constructs within the same teacher sample (Le et al., 2024). This study addresses this gap by examining the correlation between Digital Content Consumption (DCC) and Perceived Digital Platform Social Influence (PDPSI) among teachers participating in PLNs. The key research question is therefore: To what extent is digital content consumption related to perceived platform-based social influence among teachers in professional learning networks? Because the study is cross-sectional and correlational, it estimates the magnitude and direction of the association between DCC and PDPSI but cannot establish temporal ordering or causality.

Theoretical Framework

The study draws on three complementary theoretical perspectives on teacher professional development through digital networks.

Social Learning Theory (Bandura, 1977)

Social learning theory proposes that learning occurs in a social context through observation, imitation, and modelling. Participation in digital professional learning networks involves consuming videos, lessons, or reflections prepared by colleagues and being influenced by community members' actions or suggestions. Social learning theory does not, however, specify whether content consumption (observational learning) comes first and then triggers social influence, or vice versa.

Communities of Practice Theory (Lave & Wenger, 1991; Wenger, 1998)

Communities of practice theory conceptualises learning as situated participation in a social context, in which content consumption and social influence are intertwined through engagement with community artefacts. From this perspective, digital professional learning networks can be understood as resources teachers regularly use; the emphasis is therefore less on learning itself than on sharing and participating in community values and expertise. From a communities of practice perspective, teachers learn through participation in shared professional activities, engagement with community resources, and interaction with peers. In digital PLNs, content consumption and perceived social influence may therefore represent related forms of participation in a shared professional practice.

Diffusion of Innovations Theory (Rogers, 2003)

Diffusion of innovations theory describes how innovations are communicated over time within a social system. Digital PLNs could serve as conduits for the diffusion of innovations through content consumption (e.g., instructional videos and lesson plans) or through social influence (e.g., peer recommendations and community endorsements). However, the theory does not specify a causal ordering between these processes.

These theories were considered appropriate for the present study. Taken together, they suggest that teachers who report greater engagement with digital professional content may also report stronger perceived influence from peers and norms within digital PLNs. Accordingly, the study tests the non-directional expectation that DCC and DPSI are positively associated.

Literature Review

Digital Content Consumption in Teacher Professional Learning Networks

Digital content consumption refers to teachers' engagement with online informational sources, including videos, documents, and blog posts distributed peer-to-peer or via organisational websites, as well as lesson plans and other instructional materials. The literature shows that consumption patterns differ across platforms, with social signals such as user ratings and comments shaping resource selection and use (Bates et al., 2018).

Large-scale systematic reviews have identified a range of participation roles in professional learning networks, from the primarily consumptive role of passive participants to content creation and the monetisation of one's content (the 'teacherpreneur' role) (Mercado & Shin, 2024). Research on specific social platforms has shown that Pinterest users tend to collect resources privately rather than share them widely (Lundgren et al., 2021), whereas other studies have described patterns of searching, sharing, and co-creating content on Instagram, Twitter/X, and MOOC platforms (Déchène et al., 2024; Staudt Willet, 2023).

Recent national surveys do not show uniform technology use in professional learning communities; however, teachers who use social networks for professional learning tend to be active users, and their activity depends on context and enabling factors (Le et al., 2024). Time available for participation and information reliability are enabling factors that can affect users' activity levels on social networking sites. However, few studies have measured digital content consumption.

Social Influence Mechanisms in Digital Professional Learning

Social influence in teachers' professional learning communities operates through several documented mechanisms. In this study, DPSI refers specifically to the influence teachers perceive from peers, group norms, recommendations, resource ratings, comments, and recognised opinion leaders within digital professional learning networks (PLNs). For example, evaluations attached to shared resources, including ratings and comments, may shape teachers' judgements about the relevance, credibility, and potential use of those resources (Bates et al., 2018). Similarly, studies on Twitter/X and hashtag-based professional communities identify peer recommendation, professional dialogue, shared content production, and non-hierarchical opinion leadership as important mechanisms through which ideas and practices diffuse among teachers (Fischer, 2018; Déchène et al., 2024). Accordingly, DPSI is conceptualised here as the influence teachers perceive, rather than as their visibility, network reach, leadership position, or capacity

to influence other members. These latter constructs represent influence exerted and would require separate conceptualisation and measurement.

Influence roles on platforms, such as those of teacherpreneurs and educational influencers, are characterised by increased reach and the modelling of practices (Marcelo-Martínez & Mosquera Gende, 2023). Social network analysis of social influence identifies bridging teachers as individuals whose connections across different groups are linked to the spread of information and to participatory classroom practices (Macià & Garcia, 2018). The theoretical concepts used to describe the process include social proof (evaluations), social capital (brokerage or bridging), and community norms (non-hierarchical leadership and dialogue). However, most studies of social influence in teachers' professional learning communities are based on qualitative case studies, social network analyses of specific platforms, or mixed-methods designs. Few studies have developed reliable measures of platform-based social influence experienced by teachers.

Relationships Between Digital Communication and Collaborative Learning

The empirical literature has established connections between specific digital communication behaviours and collaborative learning outcomes, but these studies mainly focus on correlations within particular platforms. A study of Instagram (N = 249) found that searching, sharing, and co-creation behaviours are positively correlated with perceptions of digital social support, with teacher enthusiasm and self-efficacy moderating these connections (Richter et al., 2022). Dialogic conversations and hashtag communities on Twitter/X and WeChat correlate with applying ideas, reducing professional isolation, and creating communities of practice (Fischer, 2018; Xue & Hu, 2021).

Social network analyses have found that teachers who serve as bridges among various groups in their online networks tend to use participatory pedagogies and to be active multi-platform users (Macià & Garcia, 2018). However, like other studies in the field, this research relies on a cross-sectional correlational design.

Positioning of the Current Study

The present study contributes to this literature by presenting quantitative findings on the connection between digital content consumption and platform-based social influence. Whereas previous studies have explored these aspects individually or qualitatively, the present study quantifies the magnitude of the association between the two constructs within a single sample. Bates et al. (2018) conducted a behavioural validation study based on

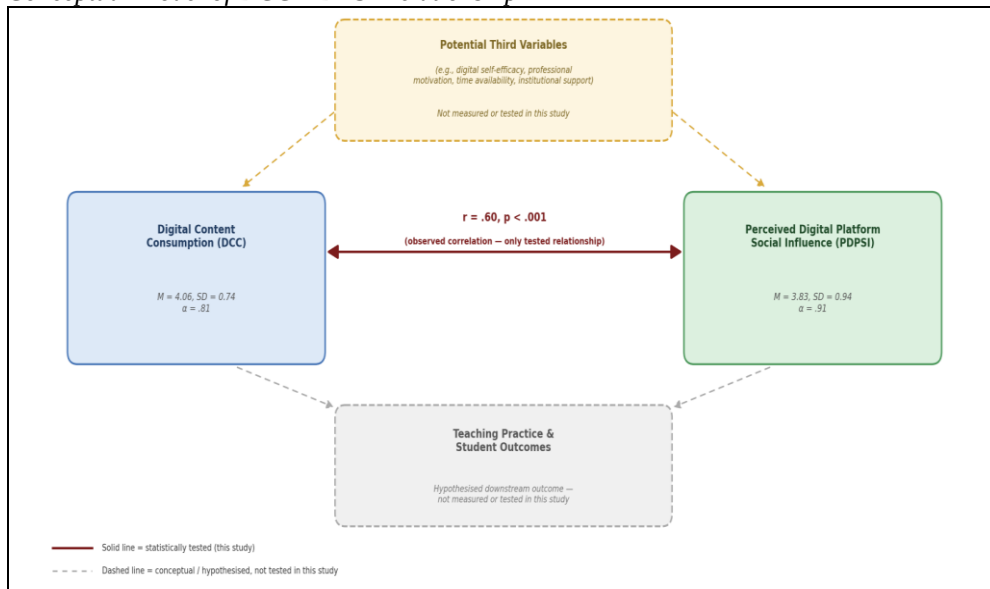
log files and multiple regression analyses to predict resource use in a repository with social cues. Whereas that study used a behavioural validation method and was limited to one platform type, the present study uses a self-report design. Richter et al. (2022) explored Instagram collaboration activities (seeking, sharing, and co-creation) and perceived social support ($n = 251$). The present study used correlation analysis with a sample of 251. Fischer (2018), in turn, applied more sophisticated methods, combining surveys, content analysis, and social network analysis to explore Twitter/X PLN engagement. The present study uses a simpler method but offers preliminary, internally consistent scales that require further validation.

Nelimarkka et al. (2021) analysed eight years of Facebook PLN data, using surveys and platform analytics to obtain longitudinal results. The present study is cross-sectional but offers measurement scales for future longitudinal research. Its primary contribution is the explicit operationalisation of DCC and DPSI and the estimation of their association in one sample ($r = .60$; 36% shared variance), which may serve as a baseline for future research. The measures showed good internal consistency, but their factor structure, convergent validity, discriminant validity, and measurement invariance remain to be established. Moreover, the cross-sectional correlational design and reliance on self-report limit causal inference and the generalisability of the findings, as discussed in detail in the Limitations section.

Methods

The present study employed a cross-sectional correlational survey design to examine the relationship between Digital Content Consumption (DCC) and Perceived Digital Platform Social Influence (PDPSI) among teachers engaged in professional learning networks. This design allowed exploration of the association between the variables but did not establish causal direction or temporal precedence, nor rule out alternative explanations. Data were collected at a single time point using self-report measures.

Figure 1:
Conceptual Model of DCC-PDPSI Relationship



Note: The solid double-headed arrow ($\leftrightarrow$) represents the only relationship examined statistically in this study: the observed bivariate correlation between DCC and PDPSI ($r = .60$, $p < .001$). The dashed arrows and the boxes for “Potential Third Variables” and “Teaching Practice & Student Outcomes” depict conceptual possibilities for future research; they were not measured, tested, or included in the statistical model reported here. Because the design is cross-sectional, the observed correlation cannot establish causal direction or temporal precedence between DCC and PDPSI.

Source: Field data, 2026

Participants and Sampling

Eligible participants were teachers currently working in Tanzania who reported active participation in at least one online PLN. Researchers recruited participants through non-probability convenience sampling using three large Facebook teacher communities and two hashtag communities. We posted recruitment messages in these communities for four weeks, including information about the digital professional learning study and a link to the online survey.

Platform analytics recorded approximately 1,850 views of the recruitment posts across the selected platforms. These view counts are reported as exposure metrics rather than as the denominator of a formal response rate, because views may not represent unique individuals and not every viewer was necessarily eligible to participate. A total of 298 individuals started the

survey. Of these, 47 were excluded from the analysis because they did not complete all survey questions. The remaining 251 completed the survey and met the eligibility criteria, yielding a final analytic sample of 251 teachers and an 84.2% completion rate among those who started the survey.

The final sample included teachers with 1–35 years of teaching experience working in different school locations: 42% worked in urban schools, 38% in suburban schools, and 20% in rural schools. Given the convenience-based recruitment procedure, the sample should not be considered statistically representative of all teachers in Tanzania or all teachers participating in digital PLNs.

The main platforms used for PLN participation were Facebook groups (68%), Twitter/X (52%), Instagram (38%), Pinterest (31%), YouTube (29%), Telegram (24%), WeChat (12%), and other platforms (8%); participants could select more than one platform. The mean duration of PLN participation was 4.2 years ($SD = 2.9$; range = 0.5–15 years). Participants reported engaging with PLN daily (45%), several times per week (38%), weekly (12%), or less than weekly (5%). Reported PLN roles were mostly lurker/observer (32%), occasional contributor (48%), frequent contributor (15%), and influencer/leader (5%).

Demographic and other relevant information could not be obtained from non-respondents. To examine possible differences associated with survey completion timing, we divided completed surveys into early and late groups, comprising the first and last 50% of completed surveys, respectively. DCC and DPSI scores did not differ significantly between early and late completers (DCC: $t = 0.87$, $p = .39$; DPSI: $t = 1.12$, $p = .26$). This check did not indicate a detectable timing-related difference among respondents, but it cannot rule out nonresponse or self-selection bias because information on non-respondents was unavailable. Furthermore, recruitment was conducted within active PLN communities, and participation was voluntary. Consequently, the sample may over-represent teachers who were highly engaged in PLNs or particularly interested in digital professional learning. Consider these limitations when generalising the findings to the broader population of teachers in Tanzania.

Measures

Digital Content Consumption (DCC) Scale

The five-item DCC scale assessed teachers' self-reported engagement with digital professional content within professional learning networks. Responses were recorded on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Item scores were averaged, with higher scores indicating

greater reported engagement with digital professional content. The items covered activities such as watching instructional videos or webinars, reading educational articles and blog posts, searching for lesson plans and teaching materials, spending time exploring peer-recommended content, and using downloadable resources, infographics, and podcasts shared by other teachers. Internal consistency was good in the current sample (Cronbach's $\alpha = .81$); however, this preliminary study did not test unidimensionality. The items were informed by previous literature on digital content engagement in professional learning networks (Bates et al., 2018; Le et al., 2024; Mercado & Shin, 2024) and were piloted with 15 teachers to assess their clarity and relevance.

Perceived Digital Platform Social Influence (DPSI) Scale

The five-item PDPSI scale assessed the extent to which teachers perceived peers, recommendations, norms, and opinion leaders in digital PLNs as influencing their professional decisions and practices. Responses were recorded on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Item scores were averaged, with higher scores indicating greater perceived social influence. The scale items were as follows: "My teaching practices have been influenced by the recommendations from other teachers whom I interact with via digital platforms," "I usually use instructional strategies or methods that are currently in vogue or have high ratings among online teacher communities," "Interaction with influential teachers or opinion leaders in social media affects my professional decisions," "I feel that my interaction with online teacher networks has affected how I view teaching," and "The views and experiences of my peers in the digital communities affect the resources or approaches I use in my teaching practice." The scale demonstrated high internal consistency in the present sample (Cronbach's $\alpha = .91$). Its items were derived from the existing literature on social influence mechanisms in professional learning networks (Bates et al., 2018; Fischer, 2018; Macià & Garcia, 2018) and were piloted with 15 teachers to assess their clarity and relevance. However, this preliminary study did not include factor analysis or formal construct validation.

Procedures

The researchers obtained ethical approval from The Open University of Tanzania before data collection. The survey was conducted online via Qualtrics over four weeks in March 2026, consistent with the four-week recruitment window described in the Participants and Sampling section. We recruited participants through posts with a hyperlink to the survey. The survey was expected to take about ten minutes to complete. The first page of the survey included an informed consent form that described the purpose,

procedures, possible risks, potential benefits, and participants' rights. Participants indicated consent by selecting "participate" before proceeding to the survey items. We enabled Qualtrics anonymisation settings and turned off IP address logging; we collected no personally identifiable information, including names, email addresses, or IP addresses. Participants were informed that we would keep their responses confidential and report only aggregated data. We offered no incentive or compensation.

A total of 298 participants started the survey, and 251 completed all items. We embedded two attention-check questions ("Please click 'Agree'") to identify inattentive responses; 47 participants did not complete all survey questions and were excluded from the analysis, leaving a final analytic sample of 251 participants.

Data Analysis

We calculated means, standard deviations, ranges, skewness, and kurtosis for the DCC and DPSI scores. We estimated Cronbach's alpha for each scale. We further examined distributions using histograms and Q-Q plots. We used the Shapiro-Wilk test to assess whether the DCC and DPSI scores approximated a normal distribution, given the importance of normality for interpreting Pearson correlation coefficients. We used the Pearson product-moment correlation as the primary measure of linear association. Given the violation of the normality assumption, Spearman's rank correlation coefficient was also calculated as a rank-based sensitivity analysis. Two-sided p-values and 95% confidence intervals are reported. We performed statistical analyses in SPSS version 28.0.

Results

Descriptive Statistics

Table 1 presents descriptive statistics for the Digital Content Consumption (DCC) and Perceived Digital Platform Social Influence (PDPSI) scales.

Table 1:
Descriptive Statistics for DCC and PDPSI Scales

Variable	n	M	SD	Min	Max	skewness	Kurtosis	α
DCC	251	4.06	0.74	1.8	5.0	-0.89	0.52	.81
DPSI	251	3.83	0.94	1.2	5.0	-0.76	0.31	.91

Note: DCC = Digital Content Consumption; PDPSI = Perceived Digital Platform Social Influence; M = Mean; SD = Standard Deviation; Min = Minimum; Max = Maximum; α = Cronbach's alpha.

Both mean scores were above the scale midpoint (DCC: M = 4.06, SD = 0.74; DPSI: M = 3.83, SD = 0.94), indicating relatively high self-reported

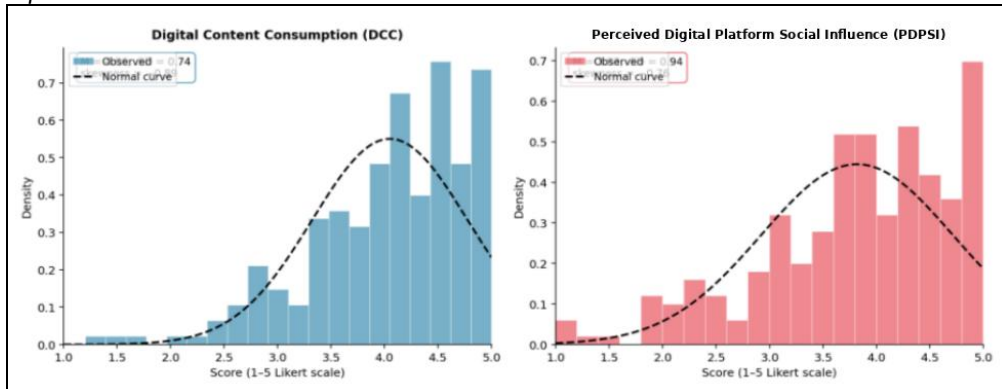
engagement and perceived platform influence in this convenience sample. Both distributions were negatively skewed. The concentration of scores near the upper end of the scales suggests a possible ceiling effect, which should be confirmed by examining the proportion of respondents at or near the maximum score.

Normality Testing

Shapiro-Wilk tests were statistically significant for both scales, and visual inspection of histograms and Q-Q plots indicated negative skew. These distributional features, together with the convenience sample of active PLN participants, should be considered when interpreting the correlation and the external generalisability of the findings.

Figure 2:

Distributions of Digital Content Consumption and Perceived Digital Platform Social Influence



Note: The distributions are negatively skewed, with scores concentrated towards the upper end of the scales, suggesting a possible ceiling effect.

Correlation Analysis

Table 2 presents the correlation between Digital Content Consumption and Perceived Digital Platform Social Influence.

Table 2:

Correlation Between DCC and PDPSI

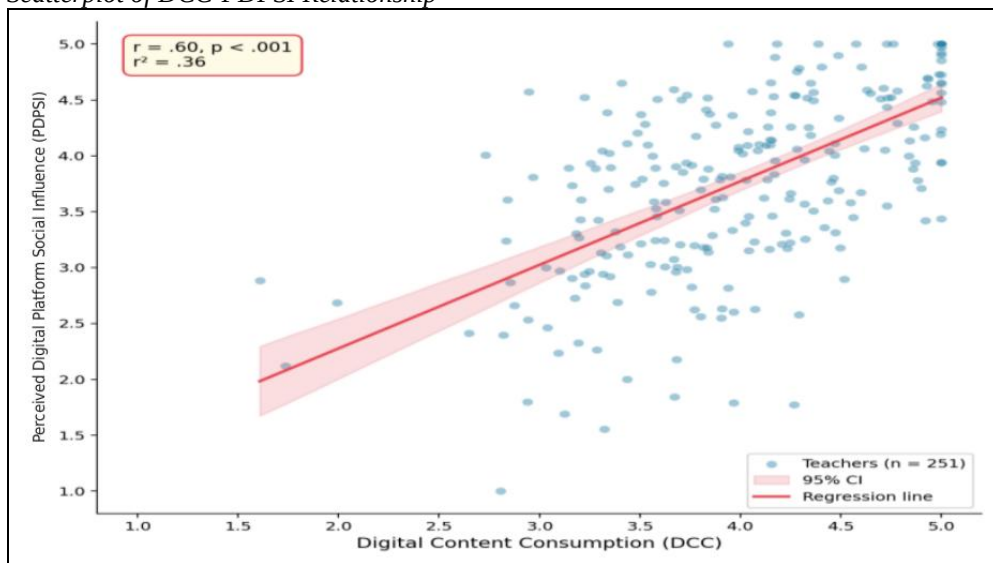
Variable	1	2
1. DCC —		
2. PDPSI	.60	

Note: DCC = Digital Content Consumption; PDPSI = Perceived Digital Platform Social Influence. $p < .001$ (two-tailed).

DCC was positively and statistically significantly associated with PDPSI (Pearson $r = .60$, 95% CI [.51, .67], $p < .001$), representing a large

association. Teachers who reported greater digital content consumption also tended to report greater perceived influence from peers and interactions within digital PLNs. The squared correlation ($r^2 = .36$) indicates that approximately 36% of the variance is shared between the two measures. Because the distributions were skewed, Spearman's rank correlation was also estimated and yielded a similar association ($\rho = .58, p < .001$).

Figure 3:
Scatterplot of DCC-PDPSI Relationship



Note: Figure 3 shows a scatterplot of the relationship between Digital Content Consumption (DCC) on the x-axis and Perceived Digital Platform Social Influence (PDPSI) on the y-axis for a sample of $n = 251$ teachers. Each dot represents one teacher. The red solid line represents the OLS regression line, and the shaded band represents the 95% bootstrap confidence interval. The two variables are significantly and positively correlated ($r = .60, p < .001; r^2 = .36$).

Summary of Results

This study examined the relationship between Digital Content Consumption (DCC) and Perceived Digital Platform Social Influence (PDPSI) among teachers participating in professional learning networks. The main finding is a significant positive correlation ($r = .60, p < .001$), indicating that teachers who reported more frequent digital content consumption also reported greater perceived social influence on digital platforms. This strong positive correlation shows that teachers who engaged more with digital content also perceived greater influence of social interaction on digital platforms. The squared correlation indicates approximately 36% shared variance between the

two constructs. However, these results should be read in light of the limitations discussed in the Study Limitations section.

Discussion

The observed positive association is consistent with the theoretical perspectives that conceptualise content engagement and social influence as related aspects of participation in professional learning communities (Lave & Wenger, 1991; Rogers, 2003; Wenger, 1998). The correlation between DCC and PDPSI ($r = .60$) is comparable to findings in other empirical research on similar variables; however, because constructs and methods differ across studies, interpret direct comparisons of effect sizes cautiously. For instance, Richter et al. (2022) found that Instagram collaboration activities (seeking, sharing, and co-creation) were positively correlated with digital social support ($r = .35$ to $r = .52$). Similarly, Bates et al. (2018) showed that the presence of social cues (ratings and comments) predicted resource use in a digital repository. However, their results cannot be compared directly with the present findings because of methodological differences. In the present study, the shared variance (36%) indicates a strong link between these two dimensions of PLN participation.

The results are broadly consistent with studies of teachers' participation in online professional learning communities for knowledge sharing, collaboration, and professional development (Carpenter & Krutka, 2014; Trust et al., 2016). Several studies have documented the importance of social interaction for accessing resources and implementing innovative teaching techniques (Greenhow et al., 2020; Carpenter et al., 2023). This study contributes by operationalising two constructs, Digital Content Consumption and Perceived Digital Platform Social Influence, and identifying a statistically significant positive correlation between them ($r = .60$).

Theoretical Explanations for the Association

Several theoretical frameworks can help to explain the connection between DCC and PDPSI. Social learning theory and communities of practice theory posit that content consumption and social influence are related elements of community engagement (Lave & Wenger, 1991; Bandura, 1977). One possible interpretation is that greater exposure to professional content provides more opportunities to encounter peer norms and recommendations. Conversely, teachers who perceive stronger peer influence may be more motivated to seek professional content (Rogers, 2003). Both constructs may also reflect common antecedents, such as digital self-efficacy, professional motivation, available time, or institutional support. The present cross-sectional data cannot distinguish between these alternatives.

Ceiling Effects and Measurement Issues

The high means and negative skew suggest possible upper-end compression. This pattern is consistent with possible ceiling effects in the sample, with a strong concentration of respondents at the upper end of the scales. Only a few teachers reported low consumption or social influence in the PLN context. If range restriction is present, the observed correlation may differ in a more heterogeneous sample, but the present data cannot indicate the direction or magnitude of any such difference. Future scale-development work should examine item difficulty and endorsement distributions and include participants with a wider range of PLN engagement. For example, ceiling effects may obscure the difference between teachers who scored 4.5 and 5.0 on the DCC scale. Such upper-end concentration may partly reflect the researcher's recruitment strategy, which oversampled highly engaged teachers and under-represented lurkers or less active PLN users.

Platform Differences and Contextual Factors

This study examined digital professional learning networks generally, without distinguishing between specific platforms. Previous studies, however, suggest that teachers' patterns of content consumption and social influence vary by platform: social media platforms (e.g., Facebook, Twitter/X, and Instagram) tend to enable interaction, networking, and collaborative knowledge exchange, whereas content repositories and e-learning environments are more oriented towards resource provision (Carpenter & Krutka, 2014; Trust et al., 2016). Platform affordances may moderate the association between content engagement and perceived peer and platform influence rather than directly explain it (Greenhow et al., 2020; Carpenter et al., 2023). The DCC–PDPSI relationship observed here reflects teachers' exposure to, and perception of, influence within these environments, not their own influence over others. Future research should compare platform types and examine how platform affordances shape professional learning behaviours and the diffusion of innovation among teachers.

Beyond platform type, other variables not included in the present analysis may act as plausible third factors in the relationship identified here. Digital self-efficacy and technology competence, professional motivation, time and access constraints, and institutional support have each been documented as factors influencing engagement in online professional learning communities (Tondeur et al., 2023). Future research should treat these as plausible moderators or control variables, rather than as established explanations for the correlation observed in this study.

Study Limitations

Several limitations of the current study warrant acknowledgement. First, the

cross-sectional, correlational design precludes causal conclusions about the relationship between DCC and PDPSI; the association may be bidirectional or confounded by a third variable, such as digital self-efficacy, work motivation, or instructional support. Second, all data came from self-report questionnaires collected at a single point in time, introducing potential threats from common-method bias, social desirability bias, and inaccurate recall of past behaviour; because no objective behavioural measure was used, responses may have been inflated to some degree. Third, the sample was recruited through convenience sampling from active PLNs and may therefore not represent the broader teacher population. Fourth, the study aggregated experiences across different platforms into a single measure, even though teachers' experiences may differ substantially depending on whether they use Facebook, YouTube, Telegram, or Twitter/X. Fifth, the study examined only the relationship between DCC and PDPSI and did not consider downstream educational outcomes such as instructional innovation, teaching efficiency, or student learning. Sixth, although the DCC and PDPSI measures developed for this study showed good internal consistency, the study did not evaluate their factor structure, convergent validity, discriminant validity, or measurement invariance. Consequently, the findings should be interpreted as preliminary evidence based on these operationalisations rather than as validation of established scales.

Despite these limitations, the study makes several contributions by:

- i) conceptualising Digital Content Consumption (DCC) and Digital Platform Social Influence (PDPSI) as measurable variables with adequate reliability;
- ii) quantifying the strength of their association ($r = .60$; approximately 36% shared variance);
- iii) providing preliminary, internally consistent self-report measures that require further psychometric and construct validation;
- iv) providing an initial effect-size estimate that may inform the planning and comparison of future studies; and
- v) formulating testable hypotheses for longitudinal and experimental follow-up.

This research constitutes a foundational descriptive study that can help to guide future work on how teachers learn within digital professional learning networks. Despite its limitations, identifying a strong relationship between content consumption and social influence among active PLN users provides a basis for understanding the integrative nature of digital professional learning and for planning future research.

The study provides preliminary evidence of a strong positive association between digital content engagement and perceived platform-based social influence among active PLN participants. However, the study's methodological weaknesses (its cross-sectional design, self-report measures, convenience sample, and lack of outcome measures) mean the results should be treated as hypotheses to be confirmed or refuted by further research. Designers of professional development may therefore consider providing both access to high-quality content and opportunities for constructive peer interaction, while recognising that the present study does not establish that either component causes the other.

Future research should use designs better suited to temporal and causal questions, including longitudinal, experimental, and mixed-methods approaches, to:

- i) examine temporal ordering and, where appropriate, causal effects;
- ii) validate self-report measures against behavioural measures;
- iii) examine underlying mechanisms and possible moderators;
- iv) investigate platform-specific effects; and
- v) establish links between digital content consumption, platform-based social influence, teaching practice, and learner outcomes.

Conclusion

This cross-sectional correlational study examined the association between DCC and PDPSI among 251 Tanzanian teachers participating in PLNs. DCC and PDPSI were positively associated ($r = .60$, $p < .001$), corresponding to approximately 36% shared variance. The finding is consistent with theoretical perspectives that view content engagement and social interaction as related dimensions of participation in professional learning communities (Lave & Wenger, 1991; Rogers, 2003; Vygotsky, 1978; Wenger, 1998), and is broadly in line with existing literature documenting associations between content consumption and social behaviour in digital communities of teachers (Fischer, 2018; Macià & Garcia, 2018; Nelimarkka et al., 2021). However, the convenience sample, self-report design, cross-sectional data, and preliminary status of the measures limit causal and generalisable conclusions. Further psychometric, longitudinal, and platform-specific research is needed to clarify the direction, mechanisms, and practical implications of this association.

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School Counsellors' Attitudes and Knowledge of Tele-Counselling Effectiveness in Public Secondary Schools, Abuja Municipal Area Council, Nigeria

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Abstract

This study examined the attitudes and knowledge of school counsellors regarding the efficacy of tele-counselling in public secondary schools in the Abuja Municipal Area Council. This study employed a descriptive survey design to examine the level of acceptance and knowledge of school counsellors of the concept of tele-counselling in public secondary schools in Abuja Municipal Area Council (AMAC). One hundred and five (105) registered school counsellors completed questionnaires that collected information on their demographic profiles, attitudes towards tele-counselling, knowledge of its use and benefits, and potential implementation challenges. Results indicate a generally favourable attitude towards tele-counselling, with 76.2% indicating that it is a good substitute for in-person counselling and 71.4% noting that it could increase student access. However, counsellors had varying levels of confidence and knowledge, particularly regarding confidentiality and technical problem-solving. Awareness of appropriate platforms and ethical issues was generally high, whereas the myth of complete confidentiality in tele-counselling remained prevalent. A significant and positive relationship was found ($r = 0.70$, $p < 0.001$) between counsellors' knowledge and their belief in the effectiveness of tele-counselling. The main barriers identified were technical problems, lack of training, privacy, resource constraints, and poor institutional support. The study highlights the importance of capacity building, infrastructure development, policy guidance, and awareness-raising among students and parents to make tele-counselling in secondary schools as effective as possible. These results illustrate the opportunities and challenges of integrating tele-mental health into school mental health services in a Nigerian educational setting. The study recommended that Federal Capital Territory (FCT) Secondary Education Board and AMAC Education Authorities should prioritise structured capacity building for school counsellors. Also, AMAC-specific in-service training workshops should be organised to equip practising counsellors with basic digital skills, familiarity with tele-counselling platforms, and knowledge of ethical practice in online counselling.

Keywords: *Tele-counselling, counsellors, secondary schools, tele-counselling efficacy*

Introduction

School counselling remains a critical component of the secondary school system, particularly in addressing students' academic, career, personal, and socio-emotional development. In Nigeria, school counsellors are often required to perform multiple roles beyond counselling, including classroom teaching and administrative duties, while simultaneously supporting students' psychosocial needs. This multiplicity of roles, coupled with high student–counsellor ratios and limited institutional support, has continued to constrain the effectiveness of school counselling services in public secondary schools.

Globally, the roles and functions of school counsellors are shaped by cultural context, educational policies, counselling models, and national priorities. The American School Counsellor Association (ASCA) conceptualises school counselling as a comprehensive service aimed at fostering students' academic success, career readiness, personal growth, self-awareness, and positive behavioural outcomes. However, international evidence indicates considerable variation in counsellors' responsibilities and service delivery models across countries, reflecting differences in policy frameworks, professional standards, and educational systems (Harris, 2013; Martin *et al.*, 2015). Consequently, defining and strengthening school counselling practice remains both a professional and policy concern worldwide.

In recent years, tele-counselling has emerged as an innovative approach to expanding access to school-based mental health services. Tele-counselling refers to the provision of counselling services through digital technologies such as video conferencing, telephone calls, and secure online platforms (Kidd, 2020). Within school settings, tele-counselling offers potential benefits including increased accessibility, flexibility in service delivery, continuity of care during disruptions, and the ability to overcome geographical and infrastructural barriers. These advantages are particularly relevant to Nigerian public secondary schools, where shortages of trained counsellors, inadequate facilities, and uneven service coverage remain persistent challenges (Elborai & Othman, 2021).

Despite its promise, the adoption of tele-counselling in Nigerian public secondary schools remains limited. One critical determinant of successful integration is school counsellors' readiness, which is largely influenced by their attitudes and knowledge regarding the effectiveness of tele-counselling. In this study, attitude refers to counsellors' perceptions, beliefs, and dispositions towards the usefulness and acceptability of tele-counselling as a

mode of service delivery, while knowledge encompasses counsellors' understanding of the technical, ethical, and practical requirements for delivering counselling services through digital platforms. Perceived efficacy relates to counsellors' judgments about the extent to which tele-counselling can effectively meet students' counselling needs.

Existing literature suggests that counsellors' attitudes towards technology significantly affect their willingness to adopt digital interventions. Positive attitudes facilitate acceptance and integration into practice, whereas negative perceptions may act as barriers to adoption (Adewale & Olaniyan, 2019). Equally important is counsellors' level of knowledge and competence in tele-counselling, including awareness of ethical standards, confidentiality issues, digital platforms, and strategies for managing technical disruptions. Without adequate knowledge and training, counsellors may be reluctant or ill-prepared to deliver effective tele-counselling services, even when they recognise its potential benefits (Davis, 2020).

From a policy perspective, Nigeria has articulated commitments to integrating information and communication technology (ICT) into education through documents such as the National Policy on Education, the National ICT in Education Policy, and various school guidance and counselling frameworks. These policies emphasise the use of digital tools to enhance teaching, learning, and student support services. However, there is limited clarity on how tele-counselling should be operationalised within public secondary schools, and existing counselling frameworks have not sufficiently addressed digital or remote service delivery. This policy–practice gap further complicates counsellors' adoption of tele-counselling and underscores the need for empirical evidence to guide implementation.

Notably, there is a paucity of empirical studies examining school counsellors' attitudes, knowledge, and perceptions of the effectiveness of tele-counselling within Nigerian public secondary schools, particularly in the Abuja Municipal Area Council (AMAC). This gap is concerning given the growing mental health needs of adolescents and the structural challenges facing school counselling services, including inadequate funding, limited in-service training opportunities, infrastructural deficits, and safety concerns (Ogunyemi & Akinola, 2018). Without empirical insights into counsellors' readiness and perceived barriers, policy initiatives and professional development efforts risk being poorly aligned with on-the-ground realities.

Against this backdrop, the present study seeks to appraise school counsellors' attitudes and knowledge regarding the perceived efficacy of tele-counselling in public secondary schools within AMAC. By focusing on

counsellors' perceptions rather than clinical outcomes, the study provides critical insights into the human and institutional factors that may facilitate or hinder the integration of tele-counselling into school mental health services. The findings are expected to inform evidence-based policy formulation, targeted training programmes, and strategic planning to strengthen school counselling practice and expand equitable access to student mental health support in Nigeria.

Statement of the Problem

School counselling services are an integral component of the Nigerian educational system, expected to support students' academic, personal, social, and career development. However, public secondary schools in Nigeria, including those within the Abuja Municipal Area Council (AMAC), continue to face persistent challenges that limit the effectiveness of conventional, face-to-face counselling services. These challenges include high student–counsellor ratios, inadequate counselling facilities, insufficient funding, limited opportunities for professional development, and increasing psychosocial needs of students in a rapidly changing, technology-driven society. As a result, many students who require timely counselling support are underserved.

Tele-counselling has emerged globally as a viable alternative or complementary approach to traditional counselling, offering opportunities for increased accessibility, flexibility, and continuity of care, particularly in contexts where physical, logistical, or resource constraints exist. In Nigeria, tele-counselling holds considerable promise for addressing gaps in school-based mental health services, especially in urban settings such as AMAC where digital technologies are increasingly available. Despite this potential, the adoption and effective implementation of tele-counselling in public secondary schools remain limited.

A critical factor influencing the successful integration of tele-counselling into school settings is the attitude and knowledge of school counsellors. Counsellors' perceptions of tele-counselling effectiveness, their understanding of its ethical, technical, and practical requirements, and their confidence in using digital platforms can either facilitate or hinder its acceptance and utilisation. Negative attitudes, inadequate knowledge, misconceptions about confidentiality, and limited competence in managing technical challenges may lead to resistance or ineffective use of tele-counselling services, thereby undermining its potential benefits for students.

Although studies have examined counsellors' roles and challenges within the Nigerian educational system, there is a paucity of empirical research focusing

specifically on school counsellors' attitudes and knowledge regarding the effectiveness of tele-counselling, particularly within the Abuja Municipal Area Council. This gap in the literature limits evidence-based policy formulation, training interventions, and strategic planning for integrating digital counselling services in secondary schools.

Therefore, the problem addressed by this study is the limited understanding of how school counsellors' attitudes and knowledge influence their perceptions and acceptance of the effectiveness of tele-counselling in public secondary schools in AMAC. Without such understanding, efforts to leverage tele-counselling to improve access to school mental health services may remain fragmented, ineffective, or unsustainable. This study seeks to bridge this gap by systematically examining counsellors' attitudes and knowledge, identifying existing barriers, and providing empirical evidence to inform policy, capacity building, and the effective integration of tele-counselling into school counselling practice in Nigeria.

Objectives of the Study

The main purpose of this study is to investigate the influence of school counsellors' attitudes and knowledge on the efficacy of tele-counselling in public secondary schools in the Abuja Municipal Area Council, Nigeria. Specifically, this study:

- i) Assessed the attitude and knowledge of school counsellors towards the efficacy of tele-counselling in public secondary schools in Abuja Municipal Area Council.
- ii) Established a relationship between Knowledge and Perceived Efficacy of Tele-counselling.
- iii) Ascertained the relationship between attitude and perceived efficacy of tele-counselling in public secondary schools in Abuja Municipal Area Council.
- iv) Examined the perceived challenges and barriers faced by school counsellors in implementing tele-counselling services in Nigerian secondary schools.

Theoretical and Empirical Literature Review

Tele-counselling, also referred to as telepsychology or e-counselling, involves providing counselling and psychological services through information and communication technologies, such as telephone calls, video conferencing, email, and web-based platforms (American Psychological Association [APA], 2013). The concept of telepsychology is rooted in the broader framework of telemedicine, which seeks to extend healthcare services beyond traditional physical settings using digital tools. In educational contexts, tele-counselling has gained prominence as a means of

increasing access to mental health support, especially in environments constrained by limited personnel, infrastructure, or geographical barriers.

Theoretically, tele-counselling aligns with systems theory, which views counselling as an interaction between individuals and their environments, including technological systems. By leveraging digital platforms, tele-counselling restructures the counselling environment, allowing counsellors and students to interact despite physical separation. Additionally, person-centred counselling theory (Rogers, 1957) supports tele-counselling, as core conditions such as empathy, unconditional positive regard, and genuineness can still be communicated through digital media when appropriately managed.

Empirical studies indicate that tele-counselling can be as effective as face-to-face counselling for addressing a wide range of psychological, academic, and emotional concerns among adolescents (Barak *et al.*, 2008; Richards & Viganó, 2013). During the COVID-19 pandemic, global reliance on tele-counselling significantly increased, with evidence suggesting improved continuity of care and expanded reach to underserved populations (Wind *et al.*, 2020). In school settings, tele-counselling has been shown to enhance accessibility, reduce stigma, and allow flexible scheduling for students (Elborai & Othman, 2021).

In the Nigerian context, however, tele-counselling remains relatively underutilised in public secondary schools. Studies suggest that while counsellors acknowledge its potential benefits, implementation is hindered by limited training, infrastructural deficits, and uncertainty about ethical standards (Adewale & Olaniyan, 2019). This underscores the need to examine counsellors' perceptions of the effectiveness of tele-counselling within specific local contexts, such as AMAC.

Attitude plays a critical role in the adoption and effective use of new technologies in professional practice. The Technology Acceptance Model (TAM) proposed by Davis (1989) provides a strong theoretical foundation for understanding counsellors' attitudes towards tele-counselling. TAM posits that an individual's intention to use a technology is primarily determined by two factors: perceived usefulness and perceived ease of use. In the context of tele-counselling, counsellors are more likely to adopt digital counselling platforms if they believe such tools enhance counselling effectiveness and are easy to operate.

Similarly, the Theory of Planned Behaviour (Ajzen, 1991) explains that attitudes towards behaviour, subjective norms, and perceived behavioural

control jointly influence behavioural intentions. Applied to school counselling, counsellors' attitudes towards tele-counselling, institutional expectations, and perceived competence in using digital tools collectively shape their willingness to engage in tele-counselling practice.

Empirical evidence consistently shows that positive attitudes towards technology correlate with higher adoption rates and sustained use. For instance, Alotaibi *et al.* (2020) found that counsellors with favourable perceptions of digital tools were more open to integrating tele-counselling into routine practice. In Nigeria, Ogunyemi and Akinola (2018) reported that resistance to innovation among school personnel often stems from fear of technology, lack of exposure, and inadequate institutional support.

Furthermore, studies conducted in African educational settings reveal that counsellors' attitudes are influenced by age, years of experience, access to technology, and prior training (Lasode *et al.*, 2017). Counsellors who perceive tele-counselling as a threat to traditional counselling relationships or confidentiality tend to demonstrate negative attitudes, which in turn limit its adoption. Therefore, understanding counsellors' attitudes towards tele-counselling is essential for the successful integration of technology in school counselling services.

Knowledge and competence are central to the effective delivery of tele-counselling services. From a theoretical standpoint, competency-based counselling models emphasise that counsellors must possess adequate technical, ethical, and clinical competencies to function effectively in digital environments (Corey *et al.*, 2015). Digital counselling competence includes familiarity with online platforms, ability to manage virtual therapeutic relationships, understanding of data security, and skills for handling technological disruptions.

Empirically, research shows a strong relationship between counsellors' knowledge of tele-counselling and their confidence in its effectiveness. Davis (2020) observed that counsellors with higher levels of digital literacy and prior exposure to online counselling training demonstrated greater self-efficacy and more positive perceptions of tele-counselling outcomes. Similarly, a study by Abaa *et al.* (2022) in Nigeria revealed that counsellors who had participated in ICT-related professional development were more willing to explore innovative counselling approaches.

Despite increasing awareness of tele-counselling, gaps remain in counsellors' practical knowledge, particularly regarding platform selection, online assessment techniques, crisis intervention, and the maintenance of therapeutic

boundaries in virtual settings. Misconceptions—such as the belief that tele-counselling guarantees complete confidentiality—persist among some practitioners, highlighting the need for structured training and clear professional guidelines.

In Nigerian public secondary schools, the absence of formal tele-counselling modules in counsellor education programmes further exacerbates knowledge gaps. This deficiency limits counsellors' readiness to implement tele-counselling effectively, even when positive attitudes are present. Hence, examining counsellors' knowledge and competence is crucial for understanding the efficacy of tele-counselling in school settings.

Ethical considerations are paramount in tele-counselling practice, particularly when working with minors in school environments. Ethical frameworks provided by professional bodies such as the APA (2013) and the Counselling Association of Nigeria (CASSON) emphasise issues of confidentiality, informed consent, data protection, professional boundaries, and competence. In tele-counselling, these issues are compounded by the use of digital platforms that may be vulnerable to data breaches or unauthorized access.

Theoretically, ethical decision-making models in counselling suggest that practitioners must balance client welfare, professional standards, and contextual constraints when adopting new service delivery methods. Inadequate understanding of ethical requirements can undermine the effectiveness and credibility of tele-counselling services.

Empirical studies identify ethical concerns as major barriers to tele-counselling adoption. Richards and Viganó (2013) reported that counsellors often worry about privacy breaches, difficulty managing emergencies remotely, and challenges in obtaining parental consent for minors. In Nigeria, Elborai and Othman (2021) noted that weak regulatory frameworks and limited awareness of digital ethics heighten counsellors' apprehension towards tele-counselling.

Infrastructural challenges further compound ethical issues. Poor internet connectivity, irregular power supply, lack of digital devices, and inadequate technical support remain significant obstacles in Nigerian public schools (Ogunyemi & Akinola, 2018). These limitations not only disrupt counselling sessions but also raise concerns about equity and access, as not all students can benefit equally from tele-counselling services.

Collectively, ethical and infrastructural challenges highlight the need for comprehensive policy frameworks, investment in digital infrastructure, and

continuous professional development to support the effective and ethical implementation of tele-counselling in Nigerian secondary schools.

Methodology

Research Design

This study adopted a descriptive survey design, which enabled systematic data collection on counsellors' attitudes and knowledge regarding tele-counselling. The survey approach enabled efficient quantitative data collection, providing a broad understanding of counsellors' perceptions within the target population.

Sample and Sampling Procedure

The study used a purposive inclusion framework to define the target population, in addition to a total enumeration (census) sampling technique. Using this method, all 105 secondary school counselors in Abuja's public and private secondary schools who met the study's specific inclusion criteria were included. Schools in the major districts of Abuja, such as Garki, Wuse, Maitama, Asokoro, and Gwarinpa, were deliberately included in the sample to ensure that it accurately represented the administrative and socioeconomic diversity of the Federal Capital Territory (FCT). These included well-known private institutions as well as important governmental institutions run by the FCT Secondary Education Board (SEB). Since the entire eligible population was accessible, highly localized, and relatively small, it was deemed appropriate to adopt total enumeration, which made it completely possible to include all qualifying counselors. Because the entire target population comprised the final study sample, neither a traditional sampling fraction nor a random sampling process was necessary. By avoiding selection bias and eliminating sampling error, this method greatly improved the representativeness and generalizability of the findings to the larger group of secondary school counselors working in the Abuja metropolis.

Inclusion Criteria

To be captured in the selection, counselors had to meet the following purposive parameters:

- i) Possess a bachelor's degree in guidance and counseling or a similar field of study.
- ii) Currently work as a registered counselor in a secondary school in the city of Abuja.
- iii) Have worked as a counselor at their current institution for at least a year.

Data Collection Instruments

To obtain the data needed for this study, a structured questionnaire was designed to assess school counsellors' attitudes and knowledge of tele-

counselling. The instrument was divided into four sections, each measuring a distinct construct relevant to the study objectives. The psychometric properties of each section are described below.

Section A: Demographic Information

Section A elicited background information from respondents, including age, gender, highest educational qualification, years of counselling experience, professional registration status, and category of public secondary school in which the counsellor was employed (junior, senior, or combined junior/senior). This section was included to provide context for respondents' professional profiles and to enable subgroup analyses where necessary.

Section B: Attitudes Toward Tele-counselling

Section B measured respondents' attitudes towards tele-counselling. Items assessed counsellors' perceptions of the usefulness, practicality, and acceptability of tele-counselling, as well as their willingness and self-confidence in using digital platforms to provide counselling services. Sample items included statements such as "Tele-counselling can effectively substitute face-to-face counselling sessions in schools" and "I feel confident providing counselling services through digital platforms." Responses were rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating a more positive attitude towards tele-counselling. Content validity was established through expert judgment, ensuring that items adequately covered the attitude construct. A pilot test of the instrument yielded a Cronbach's alpha coefficient of 0.82, indicating good internal consistency and reliability for the attitude scale. This value meets the acceptable reliability threshold recommended for social science research.

Section C: Knowledge of Tele-counselling

Section C assessed counsellors' knowledge of tele-counselling. The items comprised multiple-choice and true/false questions designed to measure respondents' understanding of core tele-counselling concepts, available digital platforms, ethical and confidentiality issues, and basic technical competencies required for effective online counselling. Typical items included statements such as "*Certain online platforms are appropriate for delivering tele-counselling services*" and questions relating to data protection and confidentiality safeguards. Correct responses were scored as 1, while incorrect or "don't know" responses were scored as 0, with higher total scores reflecting greater knowledge of tele-counselling.

Content validity was ensured through alignment with established tele counselling guidelines and literature, and expert validation by counselling

and ICT specialists. The reliability of the knowledge section was determined using the Kuder–Richardson Formula 20 (KR-20), appropriate for dichotomously scored items. The analysis produced a reliability coefficient of 0.76, indicating satisfactory internal consistency.

Section D: Perceived Challenges and Barriers to Tele-counselling

Section D examined counsellors' perceptions of challenges and barriers associated with the implementation of tele-counselling in public secondary schools. Items addressed issues such as inadequate training, poor internet connectivity, lack of institutional support, ethical concerns, privacy issues, and infrastructural limitations. Sample statements included *"Insufficient training limits my ability to effectively use tele-counselling"* and *"Inadequate infrastructure hinders the effective delivery of tele-counselling services."* Responses were measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating greater perceived barriers.

The barrier scale demonstrated strong content validity following expert review. Reliability analysis from the pilot study yielded a Cronbach's alpha coefficient of 0.85, suggesting high internal consistency and reliability of the scale.

Before collecting the main data, ten counsellors from other schools who were not included in the main study piloted the questionnaire. This pilot testing allowed us to test the clarity of questions, stability of responses and the general validity of the instrument. The feedback from this procedure resulted in modifications to enhance the clarity and accuracy of the instrument.

Data Collection Procedure

The questionnaire was administered using both direct (face-to-face) and online approaches to ensure broad coverage and a high response rate. Prior to data collection, official permission was obtained from the relevant education authorities and school heads within public secondary schools in the Abuja Municipal Area Council (AMAC). The purpose of the study was clearly explained to all participants, and they were assured of confidentiality and anonymity of their responses.

The questionnaires were distributed personally to the 105 selected school counsellors with the assistance of school heads and guidance coordinators in the respective schools. This personal administration helped to clarify any concerns raised by respondents and enhanced cooperation. In situations where counsellors were unavailable for physical contact or where logistical

constraints existed, the questionnaire was administered via online platforms using a secure electronic form.

Participants were given a period of two weeks to complete and return the questionnaires. To enhance the response rate and minimise non-response bias, follow-up reminders were issued through phone calls, text messages, and electronic notifications. At the end of the stipulated period, all administered questionnaires were retrieved and found suitable for analysis, yielding a 100% response rate. This systematic approach ensured effective data collection and adequate representation of the target population.

Data Analysis

Method of Data Analysis

The Statistical Package for the Social Sciences, Version 26.0, was used to conduct both descriptive and inferential analyses of data gathered from 105 secondary school counselors. The final analysis sample comprised 105 individuals after the data purification procedure eliminated incomplete responses. Descriptive statistics were used for research questions 1, 2, and 5, which examined counselors' attitudes, knowledge levels, and institutional impediments, respectively. To analyze individual item responses across the five-point Likert scale options—strongly agree, agree, undecided, disagree, and strongly disagree—frequency and percentage distributions were computed.

To ascertain the items' central tendency and dispersion, the mean and standard deviation were also calculated. A theoretical mean of 3.0 was set as the baseline for the five-point weighing scale, with strongly agree assigned a value of 5 and strongly disagree a value of 1. Items with a mean score of 3.0 or more indicated high prevalence or agreement, whereas items with a mean score of less than 3.0 indicated low prevalence or disagreement. The Pearson Product-Moment Correlation Coefficient was used to examine the relationship between the study variables for research questions 3 and 4. In particular, research question four examined the relationship between knowledge of tele-counseling and perceived efficacy, whereas research question three examined the relationship between attitudes toward tele-counseling and perceived efficacy. Standard behavioral science thresholds were used to assess the strength of correlation coefficients: values between 0.10 and 0.29 were regarded as weak, between 0.30 and 0.49 as moderate, and between 0.50 and 1.0 as strong or high. Lastly, the statistical significance of these directional associations was examined and confirmed at the $p < 0.05$ level.

Ethical Considerations

Participation in the study was voluntary, with assurances of confidentiality and anonymity. Ethical approval was obtained from the relevant educational authorities and the institutional review board.

Results

Research Question 1: What are school counsellors' attitudes towards the efficacy of tele-counselling in public secondary schools in Abuja Municipal Area Council?

Table 1:

Attitudes of school counsellors towards the perceived efficacy of tele-counselling in public secondary schools in Abuja Municipal Area Council

Statement	SA (Strongly Agree)	A (Agree)	U (Undecided)	D (Disagree)	SD (Strongly Disagree)	Mean Score
Tele-counselling can effectively replace face-to-face counselling.	35 (33.3%)	45 (42.9%)	10 (9.5%)	10 (9.5%)	5 (4.8%)	4.0
I am confident in my ability to deliver tele-counselling services.	20 (19.0%)	40 (38.1%)	15 (14.3%)	20 (19.0%)	10 (9.5%)	3.4
Tele-counselling is as effective as traditional face-to-face counselling.	30 (28.6%)	40 (38.1%)	15 (14.3%)	10 (9.5%)	10 (9.5%)	3.8
Tele-counselling improves students' access to counselling.	40 (38.1%)	35 (33.3%)	15 (14.3%)	10 (9.5%)	5 (4.8%)	4.0
Tele-counselling poses privacy and confidentiality challenges.	15 (14.3%)	20 (19.0%)	25 (23.8%)	30 (28.6%)	15 (14.3%)	2.8

School counsellors' views on the pros and cons of tele-counselling vary. For the statement "Tele-counselling may effectively replace face-to-face counselling," 76.2% of counsellors strongly agreed (33.3%) or agreed (42.9%), with a mean score of 4.0. This indicates a positive view of tele-counselling's ability to replace traditional approaches. Counsellors were less confident in tele-counselling: 19.0% strongly agreed, 38.1% agreed, and 28.5% were undecided or disagreed. Our mean score was 3.4, showing that while many counsellors are willing, others are uncertain or unprepared. With a mean score of 3.8, 66.7% agreed or strongly agreed that tele-counselling

was more successful than face-to-face counselling. While most therapists find tele-counselling useful, some are wary about comparing it to in-person counselling. A substantial majority (71.4%) agreed or strongly agreed that tele-counselling increases students' access to counselling (mean = 4.0). Final comments on tele-counselling privacy and confidentiality were divided. 33.3% agreed or strongly agreed that it poses obstacles, 42.9% disagreed, and 23.8% were undecided. Privacy concerns are recognised but not universally perceived as a substantial barrier, as seen by the lower mean score of 2.8. The research shows optimism about tele-counselling's role in education, while highlighting areas such as counsellor confidence and privacy that may require additional support and training.

The findings relating to the first research question revealed that school counsellors generally perceived tele-counselling as a promising approach to counselling service delivery in public secondary schools within the Abuja Municipal Area Council, although some reservations remained regarding counsellors' confidence and privacy issues. A substantial proportion of the respondents (76.2%) either strongly agreed (33.3%) or agreed (42.9%) that tele-counselling could effectively replace face-to-face counselling, with a mean score of 4.0. This finding reflects a generally positive perception of tele-counselling as a practical alternative to conventional counselling, particularly in situations where physical interaction may be limited. The result is consistent with Smith *et al.* (2021), who reported increasing acceptance of technology-based counselling within educational settings. It also supports the view of García and Weiss (2020) that tele-counselling provides an accessible means of delivering mental health services when face-to-face counselling is disrupted by geographical limitations or public health emergencies such as the COVID-19 pandemic.

Although respondents demonstrated favourable perceptions towards tele-counselling, their confidence in providing such services was comparatively lower. While 57.1% of the counsellors either strongly agreed (19.0%) or agreed (38.1%) that they were confident in delivering tele-counselling, a sizeable proportion (28.5%) remained undecided or expressed disagreement, resulting in a mean score of 3.4. This suggests that acceptance of tele-counselling does not necessarily translate into confidence in its practical delivery. The finding may be attributed to limited practical experience, inadequate training, or uncertainty about adapting traditional counselling skills to virtual environments. Similar observations were reported by Békés and Aafjes-van Doorn (2020), who emphasised the importance of targeted professional training in strengthening counsellors' competence for online practice. Simpson *et al.* (2021) likewise noted that familiarity with digital

platforms contributes significantly to counsellors' confidence in providing effective virtual counselling.

The findings further showed that 66.7% of the respondents agreed or strongly agreed that tele-counselling could be as effective as face-to-face counselling, with a mean score of 3.8. Although this reflects a generally positive perception of its effectiveness, the moderate mean score suggests that some counsellors remain cautious about equating online counselling with conventional face-to-face practice. This finding agrees with Backhaus *et al.* (2012) and Shore *et al.* (2018), who reported that tele-counselling can achieve outcomes comparable to face-to-face counselling when appropriately implemented. Nevertheless, concerns relating to therapeutic alliance, limited non-verbal communication, and crisis management continue to influence counsellors' perceptions of the effectiveness of remote counselling, as observed by Gros *et al.* (2013).

Another important finding was that 71.4% of the respondents either agreed or strongly agreed that tele-counselling improves students' access to counselling services, with a mean score of 4.0. This high level of agreement reinforces one of the widely recognised advantages of tele-counselling, namely its ability to overcome barriers associated with geographical distance, transportation, scheduling difficulties, and shortages of qualified counselling personnel. Consequently, tele-counselling has the potential to extend mental health services to students who may otherwise have limited access to professional support. This finding supports the observations of Langarizadeh *et al.* (2017) and Myers *et al.* (2017), who highlighted improved accessibility as one of the major strengths of tele-counselling, particularly within underserved and resource-constrained settings.

The findings on privacy and confidentiality, however, revealed more diverse opinions among the respondents. Only 33.3% agreed or strongly agreed that tele-counselling poses challenges to privacy and confidentiality, whereas 42.9% disagreed and 23.8% remained undecided, producing a relatively lower mean score of 2.8. These responses suggest that although privacy concerns are recognised by some counsellors, they are not universally perceived as a major obstacle to the adoption of tele-counselling. Nevertheless, the variation in responses indicates the need for greater awareness of ethical issues relating to confidentiality in online counselling practice. This finding is consistent with Torous and Roberts (2017), who emphasised the importance of protecting client information within digital counselling environments. Likewise, Reamer (2018) stressed that clear institutional policies, secure communication platforms, and continuous

ethical training remain essential for safeguarding confidentiality during tele-counselling sessions.

Research Question 2: What is the level of knowledge of school counsellors regarding the perceived use and benefits of tele-counselling in public secondary schools in Abuja Municipal Area Council?

Table 2:

Level of knowledge of school counsellors regarding the use and benefits of tele-counselling?

Knowledge Item	SA (Strongly Agree)	A (Agree)	U (Undecided)	D (Disagree)	SD (Strongly Disagree)	Mean Score	Standard Deviation (SD)
Which platforms are suitable for tele-counselling?	35 (33.3%)	45 (42.9%)	10 (9.5%)	10 (9.5%)	5 (4.8%)	4.0	0.8
Tele-counselling guarantees complete confidentiality. (False)	20 (19.0%)	40 (38.1%)	15 (14.3%)	20 (19.0%)	10 (9.5%)	3.4	1.2
Relevant ethical guidelines for tele-counselling	30 (28.6%)	40 (38.1%)	15 (14.3%)	10 (9.5%)	10 (9.5%)	3.8	1.0
Using confidentiality settings on platforms	40 (38.1%)	35 (33.3%)	15 (14.3%)	10 (9.5%)	5 (4.8%)	4.0	0.9
Managing technical disruptions	15 (14.3%)	20 (19.0%)	25 (23.8%)	30 (28.6%)	15 (14.3%)	2.8	0.7

The findings related to Research Question 2 indicate varying levels of knowledge among school counsellors regarding the use and benefits of tele-counselling. A significant majority exhibited awareness regarding suitable platforms for tele-counselling, with 76.2% either strongly agreeing or agreeing (mean score = 4.0, SD = 0.8). This demonstrates a solid comprehension of the technical tools utilized in remote counselling. The assertion that “Tele-counselling guarantees complete confidentiality” is inaccurate. Only 57.1% (19.0% strongly agree + 38.1% agree) accurately identified this issue, whereas 28.5% were either undecided or disagreed,

indicating a degree of confusion or misunderstanding regarding confidentiality assurances in tele-counselling. A mean score of 3.4, accompanied by a standard deviation of 1.2, indicates variability in knowledge within this important ethical domain. The familiarity with pertinent ethical guidelines for tele-counselling was moderately high, as evidenced by 66.7% of participants agreeing or strongly agreeing with their knowledge of these guidelines (mean = 3.8, SD = 1.0), indicating a level of awareness alongside the potential for enhancement. Counsellors demonstrated a strong understanding of confidentiality settings on tele-counselling platforms, with 71.4% agreeing or strongly agreeing with this item (mean = 4.0, SD = 0.9), reflecting their familiarity with practical measures to safeguard privacy during sessions. Knowledge regarding managing technical disruptions was notably low, with only 33.3% of respondents expressing agreement or strong agreement about their expertise. The majority remained undecided or disagreed, yielding a mean score of 2.8 and a standard deviation of 0.7. This indicates a notable deficiency in readiness to address typical technical issues encountered in tele-counselling.

The results concerning the degree of knowledge of school counsellors about the use and the benefits of tele-counselling demonstrate that knowledge is not uniform across particular domains. Many counsellors reported having good knowledge in identifying the appropriate platforms for tele-counselling (76.2%), with a mean score of 4.0 (SD = 0.8). This implies that most counsellors are acquainted with the technology needed for practical remote counselling sessions, which aligns with findings highlighting the significance of digital literacy in tele-counselling (Glueckauf *et al.*, 2018).

The findings also revealed some uncertainty regarding confidentiality in tele-counselling. Although 57.1% of the respondents correctly recognised that tele-counselling does not guarantee complete confidentiality, 28.5% were either undecided or disagreed, while the mean score of 3.4 (SD = 1.2) reflected noticeable variation in respondents' knowledge. This suggests that although many counsellors appreciate the ethical limitations associated with online counselling, misconceptions still exist regarding the extent to which confidentiality can be guaranteed within virtual environments. Since confidentiality remains a fundamental ethical principle in counselling practice, inadequate understanding of its limitations may affect both professional practice and clients' confidence in tele-counselling services. This finding is consistent with Barnett (2019), who emphasised the ethical responsibilities associated with protecting client information in telehealth services. Similarly, Reamer (2018) highlighted the need for continuous professional guidance and training to strengthen counsellors' understanding of privacy and confidentiality in digital counselling environments.

Knowledge of the ethical guidelines governing tele-counselling was also encouraging. The findings showed that 66.7% of the respondents either strongly agreed or agreed that they were familiar with the relevant ethical guidelines, with a mean score of 3.8 (SD = 1.0). Although this reflects a satisfactory level of awareness among many of the respondents, it also indicates that there remains room for improvement in ensuring that all school counsellors possess adequate knowledge of professional standards guiding online counselling practice. The finding supports the position of the American Counselling Association (2014), which emphasises the importance of ethical competence in the delivery of tele-counselling services and the need for continuous professional development to promote adherence to established ethical principles.

In contrast, respondents demonstrated comparatively lower knowledge regarding the management of technical disruptions during tele-counselling. Only 33.3% agreed or strongly agreed that they possessed adequate knowledge of handling technical challenges, resulting in a mean score of 2.8 (SD = 0.7). This finding indicates that many school counsellors may not be adequately prepared to respond effectively when technological difficulties occur during counselling sessions. Such challenges have the potential to interrupt communication, reduce the quality of counselling, and affect the continuity of service delivery. This finding agrees with Reese *et al.* (2016), who identified technological disruptions as one of the common challenges affecting the effectiveness of tele-counselling. The result therefore underscores the importance of providing counsellors with practical training that equips them with the necessary skills to anticipate, manage, and minimise the impact of technical difficulties during online counselling sessions.

Research Question 3: What is the relationship between attitude and perceived efficacy of tele-counselling in Abuja Municipal Area Council public secondary schools?

Table 3:
Pearson Correlation between Attitudes and Perceived Efficacy of Tele-counselling

Variables	No	Df	R	Significance (p-value)
Attitudes Toward Tele-counselling	105	208	0.65	0.000
Perception of Tele-counselling's Effectiveness	105			

The Pearson *r* value of 0.65 indicates a moderately strong positive relationship. This suggests that as counsellors' attitudes become more

positive, they perceive tele-counselling as more effective in supporting students.

The attitudes of school counsellors in Abuja reflect a positive outlook on the role of tele-counselling in education, with hopes of increasing access and providing a viable alternative to traditional counselling. However, it also highlights key areas such as counsellor confidence and privacy concerns that need to be addressed through professional development, technical support, and policy guidelines to enable tele-counselling to be fully effective and acceptable.

The findings relating to Research Question 3 revealed a moderate positive relationship between school counsellors' attitudes towards tele-counselling and their perception of its effectiveness ($r = 0.65$, $p < 0.001$). This indicates that counsellors who hold more favourable attitudes towards tele-counselling are more likely to perceive it as an effective approach for supporting students. The strength and statistical significance of the relationship suggest that counsellors' attitudes play an important role in shaping how they evaluate the effectiveness of tele-counselling within the school setting.

This finding is consistent with Ajzen's (1991) Theory of Planned Behavior, which proposes that individuals who develop positive attitudes towards a particular behaviour are more likely to form favourable intentions towards engaging in that behaviour. Within the context of this study, counsellors who view tele-counselling positively are more likely to appreciate its value, perceive it as effective, and demonstrate greater willingness to incorporate it into counselling practice. Similar findings have been reported by Yellowlees *et al.* (2018) and Pierce *et al.* (2020), who observed that clinicians with positive attitudes towards telehealth services generally expressed higher levels of confidence, satisfaction, and belief in the effectiveness of these interventions.

The observed relationship further suggests that improving counsellors' attitudes towards tele-counselling may contribute to stronger perceptions of its effectiveness. Negative perceptions arising from concerns about privacy, technological challenges, or difficulties in establishing therapeutic relationships may reduce counsellors' willingness to embrace tele-counselling and influence how effective they perceive it to be. This position is supported by Simpson and Reid (2014), who noted that issues relating to confidentiality, technology, and therapeutic engagement can shape practitioners' attitudes towards online counselling. Consequently, addressing these concerns through appropriate interventions may help strengthen counsellors' confidence and acceptance of tele-counselling.

The findings also highlight the importance of continuous professional development and institutional support in promoting positive attitudes towards tele-counselling. Providing counsellors with relevant training, opportunities for peer learning, and access to reliable technological resources can improve their familiarity with online counselling platforms and enhance their confidence in delivering virtual counselling services. Gibson *et al.* (2021) similarly emphasised that increased exposure to appropriate technology and professional support contributes to more positive attitudes towards tele-counselling practice. As counsellors become more confident and competent in using digital counselling platforms, they are more likely to recognise the benefits of tele-counselling in improving accessibility, flexibility, and continuity of counselling services. This observation supports Glueckauf *et al.* (2018), who highlighted these advantages as important factors influencing the successful implementation of tele-counselling within educational settings.

Research Question 4: What is the relationship between Knowledge and Perceived Efficacy of Tele-counselling?

Table 4:

Pearson Correlation between Knowledge and Perceived Efficacy of Tele-counselling

Variables	No	Df	r	Significance (p-value)
Knowledge of Tele-counselling	105			
Perception of Tele-counselling Effectiveness	105	208	0.70	0.000

The Pearson correlation coefficient ($r = 0.70$) indicates a strong positive relationship, confirming that this relationship is highly statistically significant. This implies that school counsellors with more knowledge about tele-counselling tend to view it as more effective in supporting. This finding is consistent with existing literature, which identifies knowledge as an important factor influencing the acceptance and effective use of technology-based counselling interventions. King *et al.* (2020) reported that counsellors who received adequate training on tele-counselling platforms and ethical considerations expressed greater confidence in delivering remote counselling services and were more likely to regard tele-counselling as a practical alternative to face-to-face counselling. Similarly, Nelson and Bui (2010) observed that increased familiarity with telehealth technologies reduced providers' anxiety towards the use of technology and encouraged greater acceptance and adoption of telehealth innovations.

The finding also supports the Technology Acceptance Model (TAM), which proposes that users' acceptance of technology is influenced by their perceptions of its usefulness and ease of use (Davis, 1989). Within the

context of this study, counsellors who possess adequate knowledge of the technical, ethical, and practical aspects of tele-counselling are more likely to perceive it as both useful and effective. This level of understanding may also increase their willingness to integrate tele-counselling into routine counselling practice and strengthen their confidence in its ability to meet students' counselling needs.

The strong relationship observed in this study further highlights the importance of continuous professional development for school counsellors. Providing regular training opportunities can help improve counsellors' knowledge, address existing knowledge gaps, and strengthen positive perceptions of tele-counselling. This position is supported by Gibson *et al.* (2021), who emphasised that continuous education and training enhance knowledge, improve perceptions of tele-counselling services, and encourage their effective utilisation. Furthermore, Reay *et al.* (2020) noted that the rapid expansion of telehealth during and after the COVID-19 pandemic has made it increasingly important for counsellors to maintain current knowledge and competencies required for effective tele-counselling practice.

Research Question 5: What are the main challenges and barriers school counsellors face in implementing tele-counselling in Abuja Municipal Area Council public secondary schools?

Table 5:
School Counsellors' Responses on Key Challenges and Barriers in Tele-counselling
 (N = 105)

Challenge	SA	A	U	D	SD	Mean	SD
Technical Issues	42	38	10	9	6	4.00	0.98
Lack of Training	45	35	12	8	5	4.01	0.96
Confidentiality & Privacy	39	37	13	11	5	3.89	1.02
Limited Engagement	41	36	14	9	5	3.94	0.99
Limited Resources	43	34	15	8	5	3.97	0.98
Institutional Support	40	33	17	10	5	3.89	1.00
Perceived Effectiveness	38	36	15	10	6	3.87	1.02
Client Readiness & Acceptance	44	32	13	10	6	3.95	1.01

Poor internet connectivity, shortage of equipment, and technical issues discouraged 42 counsellors who strongly agreed and 38 who agreed, suggesting that inadequate technical infrastructure hinders tele-counselling. The highest mean score related to inadequate training, indicating that a lack of training in ethical standards is the most significant difficulty and underscoring the need for professional development. Many counsellors were also concerned about the privacy of students attending sessions remotely, reflecting growing concerns regarding virtual data security and secrecy.

Virtual sessions may be less effective if students struggle to participate and maintain attention, and counsellors observed that students typically lack calm, secluded spaces for therapy, a further logistical hurdle to privacy and focus. Many respondents believed that schools lack the administrative support, regulations, and procedures needed for effective tele-counselling. Some practitioners were also hesitant to use remote counselling because they doubted its efficacy compared with face-to-face alternatives, while students and parents may be uncomfortable with the technology or with tele-counselling itself.

The findings revealed several challenges affecting the implementation of tele-counselling by school counsellors in public secondary schools within the Abuja Municipal Area Council. The results suggest that although tele-counselling offers considerable opportunities for expanding counselling services, its effective implementation is constrained by technical, professional, institutional, and client-related factors that require attention.

Technical challenges emerged as one of the major barriers to tele-counselling implementation. A large proportion of the respondents strongly agreed (42) or agreed (38) that poor internet connectivity, inadequate technological devices, and technical difficulties hinder the effective delivery of tele-counselling services. This finding supports previous studies which identified inadequate technological infrastructure as a significant obstacle to the successful implementation of tele-counselling, particularly in environments where digital resources are limited (Yellowlees *et al.*, 2018; Gibson *et al.*, 2021). The finding suggests that reliable technological infrastructure remains a fundamental requirement for effective online counselling service delivery.

Lack of adequate training was identified as the most significant challenge, with the highest mean score ($M = 4.01$). This finding indicates that many counsellors perceive insufficient preparation in the use of tele-counselling technologies, ethical requirements, and online counselling techniques as a major limitation to effective practice. Without adequate training, counsellors may experience reduced confidence in delivering virtual counselling services, which could ultimately affect the quality of support provided to students. This finding agrees with Glueckauf *et al.* (2018), who emphasised the importance of continuous professional development in equipping counsellors with the competencies required for effective tele-counselling practice.

Privacy and confidentiality also emerged as important concerns among the respondents ($M = 3.89$). Many counsellors expressed concern about maintaining students' privacy during remote counselling sessions, particularly when students participate from environments that may not

guarantee confidentiality. This finding highlights the ethical responsibilities associated with protecting clients' personal information during online counselling and is consistent with Simpson and Reid (2014), who noted that maintaining confidentiality presents additional challenges within virtual counselling environments. Similarly, Lester and Spear (2007) and Lester (2013) emphasised the importance of establishing trust by assuring students that counselling sessions remain confidential and that sensitive concerns can be discussed within a secure and supportive environment.

The findings further showed that student participation presented another important challenge, with a mean score of 3.94. Respondents indicated that maintaining students' attention and active participation during virtual counselling sessions can be difficult, potentially reducing the effectiveness of tele-counselling interventions. In addition, the availability of quiet and private spaces for students to participate in counselling sessions was identified as a challenge ($M = 3.97$). These findings suggest that environmental factors outside the counsellor's control may influence both students' engagement and the overall quality of tele-counselling sessions. Pierce *et al.* (2020) similarly reported that maintaining client engagement remains an important consideration in virtual counselling practice.

Institutional support was another area identified by respondents as requiring improvement ($M = 3.89$). Many counsellors reported that schools lacked sufficient administrative support, as well as clear policies and operational guidelines to facilitate the implementation of tele-counselling services. The absence of these institutional structures may hinder the successful integration and long-term sustainability of tele-counselling within school settings. This finding is consistent with Gibson *et al.* (2021), who highlighted the importance of organisational support in promoting the effective implementation of tele-counselling programmes.

The findings also revealed mixed perceptions regarding the effectiveness of tele-counselling, with some respondents remaining uncertain about whether it could achieve outcomes comparable to face-to-face counselling ($M = 3.87$). Such reservations may reflect limited knowledge of tele-counselling practice or concerns about developing therapeutic relationships within virtual environments. Simpson and Reid (2014) similarly reported that concerns relating to therapeutic alliance and the quality of online interactions may influence counsellors' acceptance of tele-counselling. Furthermore, respondents identified client readiness and acceptance as another important challenge ($M = 3.95$), noting that resistance or discomfort among students and parents could limit the successful adoption and effectiveness of tele-counselling services. This finding agrees with Glueckauf *et al.* (2018), who

recognised client acceptance as an important factor influencing the successful implementation of tele-counselling.

Overall, the findings indicate that although tele-counselling has considerable potential to improve access to school-based counselling services, addressing the challenges identified in this study remains essential for its successful implementation. Strengthening technological infrastructure, providing continuous professional training, developing clear institutional policies, safeguarding privacy and confidentiality, and improving student and parent acceptance will contribute to more effective and sustainable tele-counselling services within schools.

Conclusion

This study examined school counsellors' attitudes and knowledge regarding the perceived effectiveness of tele-counselling in public secondary schools within the Abuja Municipal Area Council (AMAC). The findings indicate that counsellors generally hold favourable perceptions of tele-counselling as a potentially useful and accessible counselling modality, particularly in addressing challenges such as high student-counsellor ratios and limited physical counselling facilities. However, these positive perceptions coexist with varying levels of confidence, knowledge gaps, and concerns related to ethical practice, confidentiality, technical competence, and infrastructural adequacy.

Importantly, the study does not suggest that tele-counselling is already effective in practice within AMAC schools; rather, it highlights counsellors' beliefs, perceptions, and readiness to engage with tele-counselling. In line with the Theory of Planned Behaviour (TPB) and the Technology Acceptance Model (TAM), counsellors' perceptions of usefulness, ease of use, and behavioural control were found to be central to their willingness to adopt tele-counselling. These perceptions are shaped by contextual realities specific to AMAC, including uneven access to digital infrastructure, limited institutional support, and the absence of clear operational guidelines for school-based tele-counselling.

The study therefore concludes that while tele-counselling is perceived positively by many counsellors in AMAC, its sustainable adoption in public secondary schools will depend on targeted policy support, structured capacity building, and institutional alignment within Nigeria's educational and counselling frameworks.

Based on the findings of our study, the implications and limitations are as follows.

Implications of the Study

The results of this study have significant ramifications for future research, counseling practice, educational policy, and counselor training.

First, there is significant opportunity to incorporate technology-mediated counseling services into public secondary schools in the Abuja Municipal Area Council (AMAC), as evidenced by the generally positive views of school counselors toward tele-counseling. This suggests that tele-counseling could be used alongside traditional face-to-face counseling, especially when physical access to counseling services is limited by distance, emergencies, health issues, or school closures.

Second, there is a strong positive correlation between counsellors' perceptions of the efficacy of tele-counselling and their knowledge of it. This suggests that counselors' acceptance and efficient use of tele-counselling are likely to be improved by enhancing their skill and knowledge. Therefore, educational authorities and professional counseling associations should prioritize ongoing professional development programs focused on digital counseling competencies, online communication skills, ethical practice, confidentiality, crisis intervention, and the use of secure telecounseling platforms.

Third, the need for comprehensive regulations and operational standards governing tele-counseling in Nigerian secondary schools is underscored by concerns regarding confidentiality, technological proficiency, inadequate infrastructure, and insufficient institutional support.

Fourth, the results emphasize the importance of schools investing in digital infrastructure. Successful implementation requires secure tele-counseling platforms, sufficient information and communication technology facilities, dependable internet access, and technical support systems. Despite positive views among counselors, the efficacy of tele-counseling may remain restricted in the absence of these enabling tools.

Fifth, the results also affect counseling education programs at Nigerian universities. To effectively prepare future counselors for modern practice, educational institutions that train professional counselors should incorporate tele-counseling competences, digital ethics, virtual counseling approaches, and developing mental health technologies into their curricula.

Limitations of the Study

Certain limitations should be noted, even though this study offers insightful information about school counselors' attitudes and understanding of tele-counseling.

The public secondary school counselors of the Abuja Municipal Area Council (AMAC) were the only participants in the study. As a result, the findings might not apply to counselors employed by private secondary schools, other Area Councils in the Federal Capital Territory, or other Nigerian states, which may have different educational settings, technology infrastructure, and institutional support. A descriptive cross-sectional survey design was used in the study to gather data all at once. Because of this, the study describes current associations but is unable to prove a causal relationship between counselors' evaluations of the efficacy of tele-counseling and their knowledge.

Additionally, rather than evaluating counselors' actual proficiency or real-world experience in providing tele-counseling services, the study evaluated their perceived knowledge and attitudes. As a result, positive attitudes do not always indicate competence in leading successful online counseling sessions. Additionally, the study's main focus was on the viewpoints of counselors. The opinions of kids, parents, school administrators, and legislators—all significant players in the deployment of tele-counseling services—were excluded. A more thorough grasp of the advantages and difficulties of tele-counseling in schools might have been possible with the inclusion of these groups. These restrictions and consequences are in line with your findings and are suitable for a journal article or postgraduate dissertation. Additionally, they inevitably result in suggestions for future research, practice, and legislation.

Recommendations

The findings of this study suggest the need for carefully targeted, context-sensitive recommendations that reflect the institutional realities of the Abuja Municipal Area Council (AMAC), Nigeria's education and counselling policy environment, and the perceptual determinants of technology adoption as explained by the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM).

First, the Federal Capital Territory (FCT) Secondary Education Board and AMAC Education Authorities should prioritise structured capacity building for school counsellors. In the short term, AMAC-specific in-service training workshops should be organised to equip practising counsellors with basic digital skills, familiarity with tele-counselling platforms, and knowledge of ethical practice in online counselling.

In the long term, tele-counselling should be formally integrated into the official school counselling service framework for FCT public schools, with dedicated budgetary provisions for digital infrastructure and technical

support, thus reinforcing counsellors' perceptions of usefulness and sustainability. Second, at the policy level, the Federal and State Ministries of Education should provide clearer direction for the adoption of tele-counselling in schools. In the medium term, the Ministries should collaborate with professional bodies such as the Counselling Association of Nigeria (CASSON) to develop comprehensive national ethical guidelines for school-based tele-counselling, with specific provisions for working with minors, parental consent, confidentiality, and data protection. Also, school administrators, including principals and vice-principals, play a critical role in shaping counsellors' readiness to adopt tele-counselling. The tele-counselling should be institutionalised as an integral component of school wellness and student support programmes, thereby normalising its use and strengthening behavioural intention and actual practice. Counsellor education and training institutions, including universities and colleges of education, should take responsibility for preparing both pre-service and in-service counsellors for digital counselling practice.

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Navigating the Fee-Free Education Policy: Coping Strategies for Sustaining Curriculum Implementation in Secondary Schools in Moshi Municipality, Tanzania

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Abstract

This study examined the coping strategies used by public secondary schools in Moshi Municipality, Tanzania, to address the challenges that the implementation of the Fee-Free Education (FFE) policy has created for teaching and learning. Specifically, the study aimed to identify the strategies schools use to cope with these challenges and determine their relevance in sustaining teaching and learning. A total of 332 participants took part in the study, comprising 307 teachers, 13 heads of schools, and 12 parents. The study used different sampling procedures for each group: parents and heads of schools were purposely selected for interviews based on their direct involvement in supporting students' learning under the FFE policy. In contrast, the study selected 307 teachers using Yamane's formula and proportionate stratified random sampling. The study collected data through questionnaires, interviews, and classroom observations. SPSS was used to analyse the quantitative data, and thematic analysis was used for the qualitative data. The findings revealed several coping strategies that schools employed to sustain teaching and learning despite challenges such as overcrowding and inadequate instructional resources, which compromise the quality of education. The identified strategies were mixing teaching methods in classrooms, using remedial classes to provide extra hours, teacher improvisation, and hiring part-time teachers. However, the study concludes that these strategies cannot serve as permanent solutions. The government should therefore recognise and support schools' efforts, especially by increasing school funding and considering qualified part-time teachers for permanent employment. Policymakers could also use these findings in a policy review to develop a more flexible and supportive policy that enhances effective curriculum implementation for quality education.

Keywords: Fee-Free Education, Curriculum Implementation, Coping Strategies, Quality Education, Teaching and Learning

Introduction

Article 26 of the Universal Declaration of Human Rights (1948) recognises education as a fundamental human right (Veriava & Paterson, 2020). In

response, several global educational initiatives have been introduced to promote equitable access to education. These initiatives include Education for All (EFA), the Millennium Development Goals (MDGs), Sustainable Development Goal 4 (SDG 4), and various Fee-Free Education (FFE) policies aimed at ensuring inclusive and quality education for all. Countries have implemented fee-free and compulsory education policies in different ways. In Japan, for example, although nine years of compulsory education at public schools is free, families may still face some education-related costs (OECD, 2018). Various African countries have implemented similar access-expansion policies, although the extent and financing arrangements vary across national contexts.

Tanzania has long struggled to increase access to basic education, even before the current Fee-Free Education policy. The Arusha Declaration called for Universal Primary Education (Kisanga & Msoka, 2025). However, in the 1990s, cost-sharing reforms reintroduced household contributions to education (URT, 1995). In 2014, the government reintroduced free basic education in public schools and extended it to lower secondary education (Kisanga & Msoka, 2025). This paper focuses on the current stage of Fee-Free Education implementation.

Since its implementation in 2014, the FFE policy has produced several positive outcomes. Notably, it has substantially expanded access to education, as reflected in increased enrolment rates (Amani, 2021). The policy has also helped to narrow enrolment disparities between students from economically disadvantaged and affluent households, thereby enhancing equity in educational access (Lucumay & Matete, 2024). Moreover, removing school fees has reduced the financial burden on parents and guardians, enabling more families to participate in and support their children's education (HakiElimu, 2017).

However, despite these positive impacts, international experience shows that policies that remove school fees and expand access tend to place additional pressure on teachers, classrooms, and instructional resources when enrolment grows faster than system capacity. Similar resource pressures have been reported in most East African education systems (Avenstrup, Liang, & Nellemann, 2004), exposing these countries to implementation challenges.

In Tanzania, strategies for implementing the FFE policy have not been sufficiently aligned with available resources (PO-RALG, 2024), leading to overcrowded classrooms, substantial infrastructure deficits, and shortages of teaching and learning materials that compromise educational quality

(Kisanga & Msoka, 2025). Other reported challenges include an increased student–teacher ratio and low parental awareness of FFE, which hinders their full support for the policy (Lyanga & Chen, 2020; Uvambe & Msoroka, 2021).

Although previous Tanzanian studies have documented challenges associated with Fee-Free Education implementation (Uvambe & Msoroka, 2021; Lazaro & Matiku, 2022; Lucumay & Matete, 2024; Kisanga & Msoka, 2025), less is known about how schools respond to these constraints in day-to-day curriculum delivery. This study therefore sought to examine (1) the coping methods employed by public secondary schools in Moshi Municipality and (2) stakeholders’ perceptions of the relevance of these coping methods in sustaining teaching and learning.

The Theoretical Foundation

This study used the Educational Production Function perspective as an organising framework. The study treated teachers, classrooms, instructional materials, and financial resources as educational inputs. FFE-related enrolment pressures may strain these inputs, while school-level responses, such as pedagogical adaptation, remedial teaching, improvisation, and temporary teacher recruitment, represent coping responses to resource constraints. Because the study did not directly measure student achievement or curriculum outcomes, the framework interprets resource-response patterns rather than empirically testing an input-output production function.

Methodology

Research Philosophy

The study followed a pragmatic philosophy because the research problem required both numerical evidence on the prevalence of school coping strategies and qualitative accounts of how stakeholders implemented and perceived those strategies. This orientation supported integrating quantitative and qualitative evidence to build a practical understanding of FFE-related challenges and school responses. Pragmatism also emphasises the usefulness of findings for improving educational practice and informing policy decisions. It supports using multiple sources of evidence to gain a comprehensive understanding of the phenomenon under investigation.

Research Approach and Design

The study adopted a convergent parallel mixed-methods design in which quantitative and qualitative data were collected concurrently, analysed separately, and then compared during interpretation to identify areas of convergence, complementarity, or divergence. Integration was achieved

through a side-by-side comparison of the quantitative and qualitative results, and the findings of the two strands were examined together for each research objective. Where the findings converged, the qualitative evidence was used to interpret or support the quantitative findings; divergent findings were explored to provide a more comprehensive understanding of how schools adopted various coping strategies to implement the curriculum under the FFE policy.

Study Area

This study was conducted in public secondary schools in Moshi Municipality, Kilimanjaro Region, Tanzania. Kilimanjaro Region has a relatively high Gross Enrolment Ratio (GER) of 78.8% (URT, 2025). This relatively high enrolment provides a relevant context for examining FFE-related coping methods, as increased access and enrolment could increase demands on teachers, instructional materials, classrooms, and other educational resources. The municipality is therefore a suitable setting for studying the challenges public secondary schools face in implementing FFE and their responses.

Population and Sample Size

Target Population

The study population comprised the 66 public secondary schools in Moshi Municipality. The individual target population comprised 66 heads of schools, 1,327 teachers, and 122 parents who were members of school boards, for a total of 1,515.

Sample Size and Sampling Procedures

The study employed different sampling procedures for the respective respondent categories, as follows:

Procedures for school selection

The 10–30% rule suggested by Mugenda and Mugenda (2013) was applied to obtain a manageable and adequately distributed sample of schools. Accordingly, 13 schools were selected, representing approximately 20% of the 66 public secondary schools in Moshi Municipality.

Procedures for selection of Teachers

For teachers, Yamane's formula was used to determine the sample size from the target population of 1,327 teachers at a 5% level of precision:

$$n = N / [1 + N(e)^2]$$

Where:

n = desired sample size

N = population of the study (1,327)

e = precision/sampling error (0.05)

Thus:

$$n = 1,327 / [1 + 1,327(0.05)^2]$$

$$n = 1,327 / [1 + 1,327(0.0025)]$$

$$n \approx 307$$

Accordingly, 307 teachers were targeted for participation in the study.

Sampling Procedures

Parents and Heads of Schools (HoS) were purposely selected for interviews based on their direct involvement in supporting students' learning under the Fee-Free Education policy. Purposive selection was appropriate because the study required participants with relevant experience and knowledge of policy implementation at the school level.

The study selected 307 teachers using proportionate stratified random sampling. Each of the 13 sampled schools constituted a stratum, and we determined the number of teachers selected from each school in proportion to the school's teacher population. We then used simple random sampling to select individual teachers within each school.

The allocation was calculated as:

$$n_i = (N_i / N) \times 307$$

where n_i = The number of teachers selected from school i ,

N_i = The number of teachers in school i ,

N = The total number of teachers in the 13 sampled schools, and

307 = the required teacher sample.

Data Collection Tools

Data were collected using the following tools:

Questionnaire

The teacher questionnaire contained 30 items rated on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree). The researcher developed the items and reviewed them with 20 secondary school teachers from schools not involved in the study to assess

clarity and relevance. The internal consistency of the instrument was assessed using Cronbach's alpha before full administration. The value of 0.7 and above was used to accept reliability.

Interview

We conducted in-depth interviews with 13 heads of schools and 12 parents. We purposively selected participants based on their direct involvement in school management or support under FFE. We conducted interviews in Kiswahili, audio-recorded with permission, and each lasted about 20 minutes. We transcribed and translated the recordings into English for analysis.

We considered qualitative information adequate when responses were complete and relevant to the study objectives and when similar views recurred across interviews. We considered data collection sufficient when the information gathered addressed the research questions and provided recurring explanations of the challenges and coping methods associated with FFE.

Observation Technique

Researchers observed six teachers (two from each school) in their classrooms. The small number of schools and teachers was deliberate, as the observations were intended to provide contextual and complementary evidence rather than statistically representative estimates of classroom practices. The three schools were chosen to reflect variation in school contexts and to enable the researcher to observe teaching and learning practices under different classroom conditions. The six teachers were chosen to provide direct evidence from a variety of subject areas and teaching situations. Each teacher was observed three times, yielding 18 observed lessons in different subjects. Repeated observations of the same teacher were intended to provide a more reliable picture of classroom practice and to reduce the possibility that findings were attributable to an unusual or one-off lesson.

Data Analysis

Quantitative data for each coping strategy, were coded and analysed using the Statistical Package for the Social Sciences (SPSS). Frequencies and percentages were calculated as the proportion of teachers who selected Agree or Strongly agree on the corresponding item(s); respondents could endorse more than one strategy. Means and standard deviations were calculated for the five-point Likert items. Skewness was examined descriptively to assess the distribution of responses. Qualitative data obtained from the interviews were analysed thematically. The analysis involved familiarisation with the data, coding relevant segments, grouping related codes into categories, and

developing themes that captured recurring patterns and meanings in participants' responses. The themes were then interpreted in relation to the study objectives and used to complement the quantitative findings.

Ethical Consideration

This study followed several ethical principles. All participants received information about the study and provided written informed consent before participating. Participation was voluntary; respondents could withdraw without penalty, and the researcher removed or coded identifying information to protect confidentiality.

The researcher also ensured honesty and transparency throughout the research process. The study cited all sources to avoid plagiarism and reported findings accurately without falsification or data manipulation.

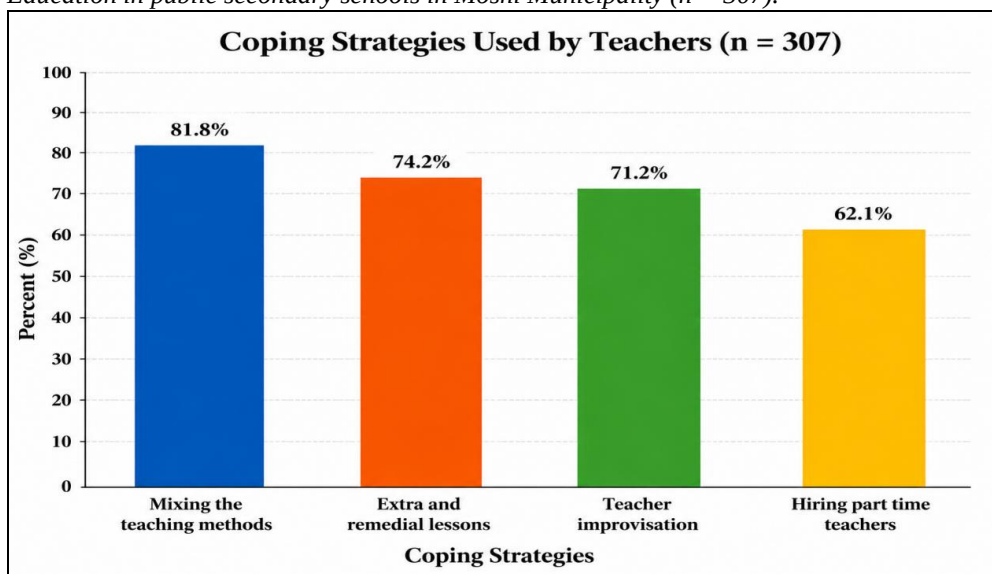
Findings and Discussion

Coping Strategies Adopted by Schools

A questionnaire completed by 307 teachers indicated that schools used several practical strategies to respond to shortages of teachers and instructional resources, as summarised in Figure 1.

Figure 1.:

Coping strategies employed by teachers to address challenges associated with Fee-Free Education in public secondary schools in Moshi Municipality (n = 307).



Source: Field data, May 2026

Note: Percentages represent the proportion of teachers who selected Agree or Strongly agree for each coping strategy. Respondents could endorse more than one strategy; therefore, percentages do not sum to 100%.

As indicated in Figure 1, combining teaching methods within a single lesson was the most frequently reported strategy, reported by 81.8% of respondents. This was followed by extra and remedial lessons (74.2%) and teacher improvisation (71.2%), while 62.1% of respondents reported hiring part-time teachers. The following sections discuss these strategies and their perceived relevance in enhancing curriculum implementation.

Mixing Teaching Methods

Large class sizes in most of the schools visited put teaching and learning at risk. As shown in Figure 1, a large proportion of teachers (81.8%) reported that they usually combine a variety of teaching methods to address overcrowded classes. The descriptive results presented in Table 1 show a similar pattern.

Table 1:

Descriptive Results on the Use of the Mixing Method as a Coping Strategy

Statement	N	Mean	SD	SK
Mixing Teaching Methods				
I use a combination of teaching methods to enhance students' participation in large classes.	307	4.34	0.71	-1.18
I integrate discussion, question-and-answer, demonstrations, and think-pair-share methods during lessons.	307	4.21	0.77	-0.96
Mixing teaching methods helps learners acquire competencies despite overcrowded classrooms.	307	4.15	0.81	-0.88
Using different teaching methods enables me to address learners' diverse learning needs.	307	4.09	0.84	-0.79
Overall Mean	307	4.20	0.78	-0.95

Note: N=Number of respondents, SD=Standard Deviation, SK=Skewness

The overall mean for the mixing-teaching-methods items was 4.20 (SD = 0.78) on a five-point scale, indicating generally strong agreement that teachers used multiple teaching methods as a coping strategy in large, resource-constrained classes.

To supplement the questionnaire data: across 6 observed classes, class size ranged from minimum 50 students to maximum 80 students. All six observed classes exceeded the recommended maximum class size of 40 stipulated in the secondary education curriculum (MoEVT,2003). Teachers in these

classes were observed combining discussion, question-and-answer, demonstration, and think-pair-share approaches.

These strategies employed by teachers are consistent with the Competence-Based Curriculum's emphasis on learner-centred pedagogy and may help teachers maintain opportunities for participation and interaction in large classes. However, the present study did not directly measure student engagement, comprehension, or learning outcomes; these should therefore be treated as plausible benefits rather than demonstrated effects.

These findings support the argument that effective curriculum implementation depends not only on resource availability but also on teachers' pedagogical adaptability. By modifying instructional approaches to suit large class sizes, teachers demonstrate professional resilience and instructional creativity, which are essential for sustaining curriculum implementation in resource-constrained contexts.

The findings are consistent with studies suggesting that discussion and other interactive strategies can support teaching in large classes (Kihaga et al., (2025); Abu-Ghararah, 2021). Nevertheless, although this approach enhances curriculum implementation, excessive class sizes, limited instructional time, and inadequate teaching resources appear to limit its effectiveness. Teachers' pedagogical innovation alone therefore cannot fully compensate for systemic shortages, highlighting the need for system-level responses, such as more classrooms, increased teacher recruitment, and expanded teaching and learning resources.

Use of Extra and Remedial Classes

As shown in Figure 1.0, 74.2% of teachers reported using remedial and extra classes to address the challenges brought about by the FFE policy in Moshi Municipal Council.

Parents described supporting remedial sessions through voluntary contributions, such as food or payments for cooks. While such support may help schools extend instructional time, it also raises questions about equity and the boundary between voluntary participation and FFE charges. Schools should therefore ensure that participation in remedial learning is not contingent on a family's ability to contribute and that any community support remains genuinely voluntary. One of the interviewed heads of school said:

Students benefit greatly from remedial classes, and I thank God that my teachers are very committed to providing their extra time to teach the students. Without this strategy, it could be difficult for us to complete the

syllabus, given the shortage of teachers and other resources we face. I also thank the parents for their cooperation in supporting these initiatives (Head of School Interview, School C).

To corroborate these findings, parents were also interviewed about their participation in supporting remedial classes. Many of them acknowledged that although tuition fees had been abolished, they still considered it their responsibility to contribute to activities that directly enhanced their children's academic performance.

One parent explained:

I understand that education is free, but that does not mean the government must do everything. I usually contribute for remedial classes for my child to attend. I understand that my child, who is in Form Two, needed more time to learn and prepare himself for the examinations (Parent Interview, School A).

Another parent remarked:

Normal class hours are not enough for teachers to finish the planned lessons because the number of students has increased in recent years. As an educational stakeholder, I do not have money, but I support the remedial programme by contributing food so that my child can remain at school for extra learning. (Parent Interview, School B).

Similarly, another parent noted:

The school has educated us on the importance of remedial classes to our children and how they may help them to perform well. As you know, no one would like their child to fail, so many of us contribute some money to support remedial classes. (Parent Interview, School C).

These findings concur with those of Simbeye, Kigobe and Malingumu (2025), who reported that parents play a significant role in school feeding programmes that facilitate teaching and learning. Similarly, Mbaire, Njoka and Muturi (2026) reported that parents in Kenyan secondary schools play a vital role in financing education and other development projects, which ultimately shapes education policy implementation.

The findings suggest a need for clearer communication about forms of parental participation that remain permissible under FFE. Parental support can complement school efforts, but it should be voluntary, transparent, and structured so that learners from households unable to contribute are not disadvantaged.

Teacher Improvisation

Teacher improvisation refers to the process through which teachers create, adapt, or use locally available materials as alternative instructional resources, particularly when conventional teaching and learning materials are unavailable or insufficient (Kambuga, 2024). Results from the teacher questionnaire revealed that teachers used improvisation to address the lack of instructional resources in their schools. This result concurs with studies in resource-constrained science classrooms that have reported using improvised instructional materials when standard resources are unavailable or insufficient (Usman & Saminu, 2017; Ramothwala & Ramaila, 2020).

Interviews with heads of schools corroborated this finding. Heads of schools reported encouraging teachers to improvise to meet students' learning needs. One of the heads of school had this to say:

Teaching and learning materials for science subjects are very scarce and severely insufficient to accommodate the growing number of students in our school. In this context, we encourage teachers to be innovative by improvising resources to enhance the teaching and learning process, and this method has been very helpful in ensuring that students learn despite the challenges of limited resources (Head of School Interview, School A).

This finding suggests that, given the shortage of teaching and learning resources, teachers need the pedagogical knowledge and skills to use local, low-cost materials to enhance teaching and learning.

Hiring Part-time Teachers

Schools in Moshi Municipal Council, like other schools in Tanzania, face teacher shortages, especially in science, mathematics, and Business Studies (John, 2024). Participants reported that hiring part-time teachers helped schools maintain subject coverage and reduce pressure on existing staff, particularly in subjects with teacher shortages. This strategy was reported to reduce teacher workload, improve subject coverage, and consequently improve learners' academic performance. However, because student achievement was not directly measured, these findings should be interpreted as perceived operational benefits rather than demonstrated improvements in academic performance. One interviewed head of school explained:

We usually hire part-time teachers to teach subjects when our school has an inadequate number of teachers, and most of those hired were able to teach business subjects to close the existing learning gap (Head of School Interview, School D).

Some schools relied on voluntary parental contributions to pay part-time teachers. Although this arrangement may temporarily address staffing gaps, its sustainability and equity are uncertain under a fee-free education policy, particularly where families differ in their ability to contribute. The finding therefore points to the need for more sustainable public-sector responses to teacher shortages.

Interviews with heads of schools corroborated the questionnaire findings. Hiring part-time teachers increased the number of teachers in public secondary schools, thereby addressing shortages in certain subjects. A head of school from Secondary School A reported:

Our school had no teachers for teaching Business Studies. To address this challenge, the preferred part-time teachers were those who could teach Business Studies. Thus, the hired part-time teachers helped our school have teachers for Business Studies (Head of School Interview, School A).

Another HoS from Secondary School G said:

Our school had one biology teacher who used to teach the subject to form one, form two, form three and form four students, but now we have employed three other teachers of biology to support the teaching and learning process of that subject (Head of School Interview, School G).

Similar responses to teacher shortages have been reported in Tanzania and elsewhere in Sub-Saharan Africa, where schools have used temporary, contract, or volunteer teachers to sustain curriculum delivery (HakiElimu, 2017; Manyengo, 2026).

Overall, this finding is consistent with Educational Production Function theory, which holds that adequate teacher inputs are essential for improving educational outcomes. From this perspective, engaging part-time teachers expands the teaching workforce, enhances instructional delivery, and supports effective curriculum implementation.

Other Coping Strategies

Qualitative interviews identified stakeholder support as an additional coping strategy that was not captured in the teacher questionnaire. In particular, five of the 13 heads of schools described receiving resources such as computers and construction materials from private-sector stakeholders.

Aids from Educational Stakeholders

To support teaching and learning, public secondary schools in Moshi Municipality sought and received books, classroom infrastructure support,

and other teaching aids from educational stakeholders. One interviewed head of school explained:

We really thank Vodacom Tanzania Plc for their support in our education initiatives. We have received educational resources like computers from them. Now our school has computers, which are very helpful for students to study and increase their knowledge of technology (Head of School Interview, School D).

Other aid received from educational stakeholders included roofing sheets from the National Microfinance Bank (NMB) to support school infrastructure.

These findings concur with those of Lukala and Mramba (2022), who found that key stakeholders, such as the Ministry of Finance, international organisations, business owners, and employers, play a significant role in enhancing the quality of education in Tanzanian schools by providing financial, material, technical, and infrastructural support.

From an Educational Production Function perspective, stakeholder contributions such as computers, construction materials, and other learning resources can be viewed as supplementary educational inputs that may help schools manage resource shortages. However, the present study did not test whether these inputs improved student learning or other educational outcomes.

Limitations

This study has several limitations. First, it was conducted in one municipality, which limits transferability to other Tanzanian settings with different enrolment pressures and resource conditions. Second, heads of schools and parents were purposively selected, and much of the evidence relies on self-report, creating potential selection and social-desirability bias. Third, the study was descriptive and cross-sectional and therefore cannot establish that the identified coping strategies caused improvements in curriculum implementation or student outcomes. Fourth, students were not included as respondents, and the study did not collect direct measures of achievement or implementation quality.

Conclusions and Recommendations

Conclusions

The study identified four prominent school-level coping strategies: combining teaching methods, providing extra or remedial lessons, improvising instructional resources, and hiring part-time teachers. Qualitative

evidence also highlighted support from parents and other education stakeholders. Participants saw these strategies as helping schools sustain teaching and learning amid overcrowding, teacher shortages, and limited resources. However, the study did not directly assess their effects on student learning; the strategies should therefore be viewed as short-term adaptive responses rather than substitutes for adequate system-level financing, staffing, infrastructure, and instructional resources.

Recommendations

Based on the findings on the coping strategies that schools use to enhance teaching and learning in the FFE context, the following recommendations are proposed for key stakeholders.

For the Government

The government should reduce schools' reliance on short-term coping arrangements by ensuring predictable financing, recruiting and equitably deploying qualified teachers, expanding classroom capacity, and providing adequate instructional materials. Where community support is mobilised, participation should remain voluntary and transparent, and no learner should be excluded or disadvantaged because a household cannot contribute.

Furthermore, the government should implement policies to increase the recruitment and retention of qualified teachers. For example, qualified part-time teachers should be considered for permanent employment to provide stability and continuity.

For Policy Makers

- i) **Integrate the findings into the FFE Policy Review:** The findings of this study could inform future revisions of the FFE policy, helping to make the policy sufficiently flexible to support these adaptive measures.
- ii) **Develop Support Frameworks:** Create national or regional frameworks to guide schools in implementing and refining these coping strategies, perhaps through best-practice guides or pilot programmes.

For School Administrators

- i) **Prioritise Professional Development:** Invest in continuous professional development for teachers, focusing on advanced pedagogical techniques, classroom management for diverse student needs, and innovative teaching methods.

- ii) **Optimise Resource Allocation:** Strategically allocate available resources to support successful coping strategies, such as providing materials for mixed teaching approaches and structuring schedules to facilitate remedial sessions.

For Teachers

- i) **Share Best Practices:** Participate actively in professional learning communities to share successful improvisation techniques and effective mixed teaching strategies with colleagues.
- ii) **Utilise Available Support:** Engage with professional development opportunities and advocate for resources that enhance their ability to use diverse teaching methods and conduct effective remedial classes.

Areas for Further Research

Future research should compare coping strategies across councils and regions, include students alongside teachers, school leaders, and parents, and use longitudinal or evaluative designs. Studies should also employ validated measures of implementation quality and direct indicators of student learning to determine whether particular coping strategies are effective, sustainable, and equitable.

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Determinants of Female Students' Participation in Hard Trade Programmes in Vocational Training Institutions in Bukoba Municipality

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Abstract

The study examines the determinants of female students' participation in hard trade programmes in vocational training institutions in Bukoba, Tanzania. Using a mixed-methods approach under a pragmatist convergent design, the study involved 130 respondents: 103 male students who participated in the quantitative study, 2 Principals, and 25 female students who participated in the qualitative study. Quantitative data were analysed descriptively using SPSS software version 26, and qualitative data were collected through semi-structured interviews and analysed thematically. The study employed purposive and stratified sampling followed by simple random. The study found that female participation in hard trade programmes remains low and uneven due to social and institutional constraints. Though institutional leadership is challenged by stereotypes, weak support systems, limited resources, and poor industry linkages, mentorship, career guidance, sensitisation, and stakeholder collaboration are key strategies for improving participation. In conclusion, the study revealed that female participation in hard trade programmes remains low and uneven, largely due to persistent social and institutional constraints that limit women's access, enrolment, and retention in these programmes. The study recommends that strengthening gender-responsive policies, coordinated interventions, and support systems are necessary to improve female participation in hard trade programmes.

Keywords: *Female students' participation, Hard trade programmes, Vocational training institutions, Bukoba municipality*

Introduction

Technical and vocational education and training (TVET) is widely recognized as a key driver of skills development, employability, and socio-economic transformation. It equips learners with practical, occupation-specific competencies that enhance productivity and self-reliance across formal and informal sectors of the economy (Shi & Bangpan, 2022). By integrating theory with hands-on training, TVET contributes directly to

poverty reduction and national development by producing a skilled workforce aligned with labour market demands (Iliescu et al., 2025). Within this framework, institutional leadership becomes a decisive factor in ensuring effective training delivery, equity, and inclusive participation in vocational education systems.

TVET programmes are broadly categorized into soft and hard trades. Soft trades include tailoring, catering, hospitality, and secretarial work, while hard trades involve technical fields such as welding, electrical installation, masonry, motor vehicle mechanics, and mechanical engineering (Matiba & Vaginga, 2022). Despite strong labour-market demand for hard trade skills, female participation remains consistently low, reflecting persistent inequality in access to technical training opportunities and raising concerns about gender equity in vocational education systems.

Globally, female participation in technical and engineering-related programmes remains limited despite the expansion of TVET systems. Female enrolment in engineering and technical fields remains below 20%, including 14.1% in Australia, 9.5% in the United Kingdom, and 19.3% in the United States (Merchant, 2025). In Canada, female participation in engineering-related programmes stands at approximately 18.5% (Adams & Baddianaah, 2023). While socio-cultural barriers are widely recognized, institutional leadership is increasingly identified as a critical determinant shaping access, participation, and retention of female students in technical education through policy implementation and institutional culture.

Institutional leadership in vocational training institutions refers to the processes through which administrators, principals, and training managers coordinate resources, implement policies, and shape institutional environments to achieve educational goals (Jeon et al., 2021). Effective leadership ensures the translation of national TVET policies into practical actions through planning, supervision, and promotion of inclusive learning environments. Conversely, weak leadership is associated with poor policy enforcement, inadequate accountability, and persistent gender disparities in training outcomes (Leithwood et al., 2019).

In Sub-Saharan Africa, similar patterns persist despite reforms in vocational education systems. In Kenya, female enrolment in hard trade programmes is reported at 39.4%, while in Rwanda only about 3% of technical students are in mechanical-related fields, and in Ghana female participation was 16.7% between 2019 and 2020 (Adam & Baddianaah, 2023). These figures reflect

deep-rooted structural and institutional constraints that continue to limit women's participation in technical and vocational training across the region.

In Tanzania, the Vocational Education and Training Authority (VETA) has implemented reforms to expand access and promote gender equality in vocational education (URT, 2021). National education policies further emphasize increased participation of women in technical fields (Kalolo, 2025). Despite these efforts, female participation in hard trade programmes remains low, with enrolment rates recorded at 14% in mechanical trades, 14% in construction, 16% in automotive, and 19.5% in electrical fields (Matiba & Vaginga, 2022), indicating that policy intentions have not fully translated into equitable outcomes.

Institutional leadership in vocational training centres is expected to translate national TVET and education policies into practical, inclusive actions that promote equal participation. This includes ensuring that gender-responsive strategies are effectively implemented through clear procedures, fair resource allocation, and continuous monitoring of female enrolment in technical programmes. However, evidence from Tanzania indicates that female participation in vocational education remains uneven, particularly in hard trade areas. National data show that female enrolment in mechanical trades is about 14%, construction 14%, automotive 16%, and electrical fields 19.5% (Matiba & Vaginga, 2022). These figures demonstrate a persistent gender gap in technical training, suggesting that institutional systems may not be fully effective in achieving equitable participation in hard trade programmes.

In Bukoba Municipality, the situation is more evident at the institutional level, where female enrolment in hard trade programmes, including motor vehicle mechanics and electrical installation, remains consistently low. The 12% and 15%, followed by declines to 10% and 9%, indicate not only low participation but also a negative trend over time (Omari, 2021). This finding suggests that, despite the availability of vocational training opportunities, institutional conditions may not be sufficiently enabling for female students to enroll, remain, and succeed in traditionally male-dominated technical programmes.

The interaction between socio-cultural influences and institutional conditions also shapes the persistence of low participation. Gender stereotypes and community expectations continue to discourage female engagement in technical fields, while institutional weaknesses may fail to counteract these pressures through targeted support mechanisms. However, what remains

unclear is the determinants of female students' participation in hard trade programmes in vocational training institutions in Bukoba, Tanzania. This creates an important analytical gap at the local level.

Msuya and Lema (2020) together with Berg and Block (2021) indicate that the persistent underrepresentation of females in hard trade programmes is largely influenced by a combination of societal attitudes and educational experiences, where gender stereotypes, cultural expectations, and school-based learning environments discourage girls from pursuing technical and vocational fields traditionally dominated by males. However, a key gap in these studies is that they do not sufficiently explain how these factors operate in specific local contexts, nor do they deeply explore the practical strategies educational institutions can adopt to address and reduce this imbalance. This leaves limited empirical understanding of context-specific interventions that could effectively promote greater female participation in hard trade programmes. Therefore, the study is designed to examine the following objectives:

- i) Female students' representation in hard trade programmes
- ii) Female students' participation in practical training activities in hard trade programmes
- iii) Female students' interest in enrolling in hard trade programmes in Tanzania

Literature Review

Determinants of Female Students' Participation in Hard Trade Programmes in Vocational Training Institutions

In the Netherlands, Berg and Blok (2021) examined female participation in technical vocational programmes using a mixed-methods design that integrated enrolment data from 12 institutions with interview findings. Their study revealed that female enrolment in engineering and mechanical trades remained persistently low, largely due to entrenched gender stereotypes and limited exposure to technical careers during early stages of education. These findings suggest that socio-cultural perceptions continue to influence female students' educational and career choices, thereby restricting their participation in traditionally male-dominated vocational fields. Furthermore, its focus on an urban European setting limits the applicability of the findings to developing countries with different socio-cultural and institutional environments. In contrast, the current study investigates the determinants of female students' participation in hard trade programmes within Tanzanian vocational training institutions. By employing a mixed-methods approach

and drawing evidence from a developing-country context, the study provides a broader understanding of the topic.

In the Sub-Saharan African context, Nkosi and Maseko (2022) investigated female participation in engineering and mechanical programmes in Technical and Vocational Education and Training (TVET) institutions located in Gauteng and KwaZulu-Natal, South Africa. Using a mixed-methods design involving 520 students and lecturers, the study revealed that female participation in hard trade programmes remained persistently low due to gender stereotypes, inadequate mentorship opportunities, and the widespread perception that technical occupations are male-dominated. These findings suggest that socio-cultural norms and institutional environments continue to shape female students' decisions to enrol and remain in technical vocational programmes. While the study successfully identified key barriers to participation, its analysis focused predominantly on student-related factors, providing limited insight into how institutional leadership practices may facilitate or constrain female engagement in hard trades. Moreover, the study was conducted within a relatively well-resourced TVET system, which differs considerably from the resource and management realities of many vocational institutions in developing countries such as Tanzania. Consequently, the transferability of its findings to the Tanzanian context is limited. To address these gaps, the current study examined the determinants of female participation in hard trade programmes in Tanzanian vocational training institutions.

In the East African context, Andiemba and Manasi (2021) The study examined Female Students Participation in Technical Vocational Education and Training in West Pokot County, Kenya This study looks at enrolment trends for female students in vocational training centres and further examines factors discouraging female students from joining vocational training institutions (VTCs). To collect data, interviews and documentary evidence were used. The respondents for the study involve managers of selected VTCs in West Pokot County. Analysis of data was done through qualitative and quantitative methods. The study found out that the distribution of students in all public VTCs in West Pokot County favoured the male gender over female students. For women enrolled in various programmes, only 45.0% fully completed their programme. It was found out that courses offered in VTCs tend to attract more male students compared to female ones. The distribution of the teaching workforce in VTCs was found to be male-dominated and therefore, female students did not have role models to look up to. The research also found out that majority of girls who were unable to proceed to

secondary and tertiary education were not aware of the opportunities available in VTCs in the county.

In Tanzania, Matiba and Vaginga (2022) examined female participation in hard trades within Tanzania's Vocational Education and Training (VET) system. A qualitative design was employed, involving 72 participants, including female trainees, instructors, employers, and principals. Data were collected through semi-structured interviews and focus group discussions and analysed using content analysis. The findings reveal significantly lower female participation in hard trades compared to soft trades. The study identifies several key factors contributing to this gender imbalance, including gender role stereotyping, employers' reluctance to hire or support women in hard trades, lack of female role models, absence of formal career guidance and counselling services, and gender-biased curriculum materials. These findings suggest that both socio-cultural perceptions and institutional support mechanisms play a significant role in influencing female participation in hard trade programmes. While the study provided valuable insights into the barriers facing female students, its analysis concentrated largely on socio-cultural and student-related factors, giving limited attention to the role of institutional leadership in shaping participation patterns. Consequently, the study did not adequately explain how leadership practices, policies, and strategic interventions within vocational institutions may either promote or hinder female involvement in technical fields. To address these limitations, the current study adopted a mixed-methods design to examine the determinants of female participation in hard trade programmes across Tanzanian vocational training institutions.

Again, Msuya and Lema (2020) examined gender disparities in technical programmes in Dodoma and Arusha through a quantitative survey involving 380 students from 10 vocational colleges. The study found that female students were significantly underrepresented in engineering and construction programmes, largely due to prevailing cultural perceptions that regard technical occupations as male domains, inadequate mentorship opportunities, and limited exposure to technical education during earlier stages of schooling. These findings demonstrate that both societal attitudes and educational experiences contribute to the continued underrepresentation of females in hard trade programmes. The study further implies that barriers to participation extend beyond individual choice and are embedded within broader social and institutional structures that shape students' career aspirations and educational pathways. However, the exclusive use of quantitative methods restricted the researchers' ability to explore

participants' experiences, perceptions, and institutional realities in greater depth. Consequently, the study provided limited understanding the determinants of female participation in hard trade programmes within Tanzanian vocational training institutions. To address these limitations, the present study adopted a mixed-methods approach that combined quantitative and qualitative data to generate both statistical and contextual insights.

Research Methodology

The study adopted a pragmatic research paradigm and employed a mixed-methods approach to investigate the determinants of female students' participation in hard trade programmes within vocational training institutions in Bukoba, Tanzania. A convergent research mixed design was utilised. According to Creswell and Creswell (2018) a researcher collects both quantitative and qualitative data, analyzes them separately, and then compares the results to see if the findings confirm or disconfirm each other. The sample size of the study was determined using the Krejcie and Morgan (1970) table, which provides a scientifically accepted method for selecting an adequate sample from a known population to ensure representativeness and statistical reliability. Based on this guideline, the study involved 103 male students, 25 female students, and two principals, ensuring that the selected participants were sufficient to capture relevant perspectives while maintaining balance between key respondent groups within the study context. Participants were selected using stratified, simple random, and purposive sampling techniques. Stratified sampling ensured adequate representation of different student groups, simple random sampling was used to select male students, while purposive sampling was applied in selecting principals and female students based on their experiences and roles related to vocational education and training. To enhance the credibility and validity of the findings, multiple data collection methods were employed. Quantitative data were gathered through questionnaires administered to male students, whereas qualitative data were collected through interviews with principals and female students. Respondents were given sufficient time to complete the questionnaires before they were collected for analysis. Interviews were conducted at convenient times agreed upon by both the researcher and participants, and the responses were recorded and documented for subsequent analysis.

The validity of the research instruments was established through expert evaluation, where three research specialists reviewed the instruments for relevance, clarity, and appropriateness. Reliability of the quantitative instrument was determined using Cronbach's Alpha coefficient, while

trustworthiness of the qualitative data was enhanced through triangulation and peer debriefing.

Following data collection, completed questionnaires were screened for completeness, coded, and entered into the Statistical Package for Social Sciences (SPSS) version 26 for analysis. Quantitative data were analyzed using descriptive statistics, specifically frequencies and percentages. The results generated from SPSS were presented in tabular form to facilitate interpretation and discussion. Qualitative data obtained from interviews were transcribed, organized, and analyzed using thematic analysis. According to Ary et al. (2010), qualitative data analysis involves four main steps: organizing and familiarizing oneself with the data, identifying categories and themes, coding and reducing themes, and finally presenting the themes according to the research questions. The four-step qualitative data analysis procedure proposed by Ary et al. (2010) was adopted because it provides a systematic and rigorous approach for managing qualitative data, identifying meaningful patterns and themes, and ensuring that the findings are clearly organized and aligned with the study's research questions. Finally, the quantitative and qualitative findings were integrated during the interpretation stage to provide a holistic understanding of female students' participation in hard trade programmes in vocational training institutions in Bukoba Municipality, Tanzania. The reliability of the questionnaire was determined using Cronbach's Alpha in SPSS version 26. A coefficient of 0.70 or above was considered acceptable for reliability (Okendo et al., 2020). Ethical considerations in this study include obtaining a research clearance permit, securing informed consent from participants, avoiding plagiarism and fraud, ensuring proper referencing, and maintaining confidentiality of the information collected

Findings and Discussion

The Determinants of Female Students' Participation in Hard Trade Programmes in Vocational Training Institutions

The paper examined the determinants of female students' participation in hard trade programmes in vocational training institutions. The data for this study were collected through questionnaires and interviews. Interviews were held with 2 Principals and 25 female students. Table 1.0 presents quantitative data collected from male students with a Likert scale. The analysis and discussion of the findings were organized based on the determinants of female students' participation in hard trade programmes in vocational training institutions.

Table 1.0:

Questionnaire Responses from male students on the determinants of female students' participation in hard trade programmes in vocational training institutions (n = 103)

Statement	1 (n, %)	2 (n, %)	3 (n, %)	4 (n, %)	5 (n, %)
Female students are adequately represented in hard trade programmes in this institution.	29 (28.2%)	36 (35%)	-	16 (15.5%)	22 (21.4%)
Female students actively participate in practical training activities in hard trade programmes.	32 (31.1%)	30 (29.1%)	6 (5.8%)	17 (16.5%)	18 (17.5%)
Female students attend hard trade classes regularly and consistently.	33 (32%)	23 (22.3%)	9 (8.7%)	26 (25.2%)	16 (15.5%)
Female students demonstrate confidence when participating in hard trade learning activities.	54 (52.4%)	28 (27.2%)	3 (2.9%)	5 (4.9%)	13 (12.6%)
Female students are actively involved in workshop and laboratory activities alongside male students.	34 (33%)	29 (28.2%)	-	27 (26.2%)	13 (12.6%)
Female students complete hard trade programmes at a rate comparable to male students.	34 (33%)	28 (27.2%)	3 (2.9%)	15 (14.6%)	23 (22.3%)
Female students show strong interest in enrolling in and continuing hard trade programmes.	44 (42.7%)	39 (37.9%)	-	6 (5.8%)	14 (13.6%)

Source: Field Data (2026).

Key: (1) Strongly Disagree, (2) Disagree, (3) Undecided, (4) Agree, and (5) Strongly Agree.

Therefore, within the study, the study examined the determinants of female students' participation in hard trade programmes in vocational training institutions. The data indicate that, regarding the statement that female students are adequately represented in hard trade programmes at the institution, a majority of male students 65 (63.2%) disagreed or strongly disagreed with the statement. In contrast, a minority of male students, 38 respondents (36.9%), agreed or strongly agreed.

The findings indicate that female students remain underrepresented in hard trade programmes within the institution. The predominance of disagreement responses suggests that respondents perceive female participation in these programmes to be below the expected level of gender equity in vocational education and training. This perception implies that female students are concentrated in a limited number of programme areas and have relatively low representation in technical specializations traditionally dominated by males, such as engineering, construction, and automotive trades. The findings are consistent with those of Andiema and Manasi (2021), who found out that the distribution of students in all public VTCs in West Pokot County favoured the male gender over female students. For women enrolled in various

programmes, only 45.0% fully completed their programme. Overall, the findings point to the persistence of structural, socio-cultural, and institutional barriers that continue to limit female participation in hard trade programmes. This underscores the need for vocational institutions to strengthen enrolment initiatives, provide targeted encouragement and mentorship opportunities, and enhance institutional support mechanisms aimed at promoting equitable participation of female students in technical fields.

The finding contrasts with Transformational Leadership Theory (Bass, 1985; Burns, 1978), which posits that effective leadership should foster inclusive institutional cultures, reduce participation gaps, and promote equitable representation through inspirational motivation, individualized consideration, and supportive practices. The observed perception of underrepresentation of female students in hard trade programmes suggests that these leadership outcomes have not been fully realized within the studied institutions. Instead of achieving balanced participation, gender disparities persist, indicating that leadership efforts to encourage and sustain female engagement in technical fields may be limited, inconsistently applied, or constrained by broader institutional and socio-cultural factors.

The finding aligns with Nkosi and Maseko (2022), who reported that female participation in technical and vocational education programmes remains low and uneven due to persistent gender stereotypes, limited institutional support, and inadequate exposure to hard trade fields. Their study further established that even where enrolment occurs, female representation in engineering and mechanical trades remains constrained by institutional and social barriers that limit full integration into practical training environments. In the same line, the current finding that female students are perceived as not adequately represented in hard trade programmes confirms the continued presence of these structural and institutional constraints, indicating that gender imbalance in vocational training persists despite ongoing efforts to promote inclusion.

The finding is inconsistent with Sustainable Development Goals 4 and 5 (United Nations, 2015), which emphasize inclusive and equitable quality education and gender equality at all levels of education and skills development. The perceived underrepresentation of female students in hard trade programmes indicates persistent disparities in access and participation within vocational training institutions, suggesting that equal opportunity in technical education has not yet been fully realized. This finding contradicts SDG 4's target to ensure inclusive and equitable access to vocational skills training for all learners, as well as SDG 5's objective to eliminate gender-

based barriers in education and empower women and girls in non-traditional fields. The finding therefore reflects ongoing structural and institutional gaps that hinder full attainment of global gender equality and inclusive education targets.

Within the study, the study examined the statement that female students actively participate in practical training activities in hard trade programmes, a minority of male students 35 (34.0%) agreed or strongly agreed, suggesting that some respondents perceive female participation in practical training positively. In contrast, majority of male students (60.2%) disagreed or strongly disagreed with the statement, suggesting that most do not perceive female students as actively engaged in practical training activities within hard trade programmes.

This pattern implies that female participation in hands-on vocational activities is perceived as limited by the majority of respondents, indicating uneven engagement across workshop environments within vocational institutions. The findings are consistent with those of Msuya and Lema (2020). who reported that female students were markedly underrepresented in engineering and construction programmes. Their study attributed this disparity to persistent cultural beliefs that associate technical careers with men, insufficient mentorship support for female learners, and limited exposure to technical and vocational education during the early years of schooling. It suggests that practical involvement is influenced by structural and operational factors such as unequal access to equipment, variations in instructor support, and differences in workshop organization across programmes. Inconsistent exposure to practical sessions further contributes to this perception, as some female students benefit from supportive, well-resourced learning environments, while others experience limited participation opportunities. The data reflect that female engagement in hard trade practical training is not consistently embedded across institutions, but varies according to institutional capacity, instructional practices, and the availability of equitable hands-on learning conditions.

The finding implies that female participation in hands-on vocational activities is perceived as limited by the majority of respondents, indicating uneven engagement across workshop environments within vocational institutions. It suggests that structural and operational conditions, including unequal access to tools and equipment, variations in instructor support, and differences in the organization of practical sessions across programmes, shape practical involvement. Inconsistent exposure to workshop-based learning further

reinforces this pattern, in which some female students benefit from more supportive, resource-rich environments, while others experience limited participation opportunities. The findings are consistent with those reported by Andiemba and Manasi (2021), who found out that courses offered in VTCs tend to attract more male students compared to female ones. The distribution of the teaching workforce in VTCs was found to be male-dominated and therefore, female students did not have role models to look up to. The research also found out that majority of girls who were unable to proceed to secondary and tertiary education were not aware of the opportunities available in VTCs in the county.

The finding underscores that female engagement in hard trade practical training is not uniformly established. Still, it fluctuates according to institutional capacity, instructional practices, and the extent of equitable access to hands-on learning experiences.

The finding contrasts with the Education and Training Policy (2014, revised 2023), which emphasizes equitable access, participation, and gender parity in all levels of education and training, including vocational and technical fields. While the policy requires institutions to eliminate structural and cultural barriers that limit female engagement in practical and technical learning, the observed uneven participation suggests that implementation gaps persist at the institutional level. In particular, disparities in access to workshops, inconsistency in instructional support, and variation in learning environments indicate that policy provisions on inclusive participation are not being fully translated into uniform practice across vocational institutions. This divergence points to a disconnection between policy intentions on gender equity in skills development and the actual lived experiences of female students in hard trade programmes.

The finding is also consistent with Matiba and Vaginga (2022), who reveal significantly lower female participation in hard trades compared to soft trades. The study identifies several key factors contributing to this gender imbalance, including gender role stereotyping, employers' reluctance to hire or support women in hard trades, lack of female role models, absence of formal career guidance and counselling services, and gender-biased curriculum materials. Similarly, the present finding indicates that female participation in hands-on vocational activities is not consistently observed across all training environments, reflecting the influence of institutional disparities in resources, instructional practices, and learning support systems on engagement in hard trade programmes.

The finding misaligns with Transformational Leadership Theory (Bass, 1985; Burns, 1978), which posits that effective leadership should consistently create inclusive, supportive, and empowering learning environments that enable all learners, regardless of gender, to participate fully and confidently. In this case, the observed uneven participation of female students in practical vocational activities suggests that such leadership outcomes are not being uniformly realized across institutions. The variation in engagement suggests gaps in individualized attention, inspirational motivation, and equitable facilitation of learning opportunities, all central elements of transformational leadership. Rather than reflecting a stable and enabling environment as theorized, the pattern indicates inconsistencies in leadership practices that fail to fully eliminate participation barriers in hard trade programmes fully.

Again, within the study, the researcher examined the level of female students' interest in enrolling and continuing in hard trade programmes in vocational training institutions. The data indicate that, regarding the statement that female students show a strong interest in enrolling in and continuing hard trade programmes, a great majority of male students 83 (80.6%) disagreed or strongly disagreed with the statement. In contrast, an extremely minority, 20 (19.4%), agreed or strongly agreed. The data suggest that female students are perceived as having limited interest in entering and persisting in hard trade programmes, reflecting a weak inclination toward sustained engagement in technical fields and indicating persistent socio-cultural and exposure-related constraints within vocational training contexts. The finding shows that female students are perceived as having limited interest in enrolling in and continuing hard trade programmes, as most respondents disagreed with the statement, suggesting a weak inclination to sustain participation in technical-vocational pathways. This perception reflects broader contextual factors such as limited early exposure to practical technical work, gendered expectations that shape career preferences, and insufficient encouragement or guidance toward hard trade fields. It further implies that institutional and socio-cultural environments may not effectively sustain female learners' motivation once they enter or consider these programmes, thereby reducing the continuity of engagement in male-dominated vocational areas. The finding is in agreement with those of Berg and Blok (2021) who observed consistently low levels of female participation in technical and engineering vocational programmes in the Netherlands. They attributed this trend to the persistence of gender stereotypes as well as limited early exposure to technical disciplines. Their research further indicated that, even with institutional initiatives aimed at improving access, female learners

were still less likely to sustain engagement in hard trade pathways, especially in occupations that have traditionally been socially constructed as male-dominated.

The finding indicates that interest among female students in enrolling in and continuing hard trade programmes is perceived as relatively low, as the majority of respondents disagreed with the statement. The finding suggests that engagement in technical-vocational pathways is not strongly sustained in terms of intention and continuity. The finding further suggests that initial attraction to hard trade fields may not translate into long-term commitment. The pattern further points to possible limitations in awareness, orientation, and reinforcement mechanisms within vocational settings that are essential for maintaining learner interest in specialised technical areas.

The finding contrasts with Schema Theory, as the observed limited interest among female students indicates the persistence of entrenched gendered cognitive structures that continue to shape perceptions of hard trade programmes as predominantly male domains. Within this theoretical lens, such schemas appear to influence how female learners interpret vocational pathways, leading to reduced perceived self-relevance and a weaker inclination to enrol and sustain participation in technical fields. This finding suggests that, despite exposure to vocational training environments, gendered mental models remain limited in their restructuring, indicating that existing cognitive classifications continue to influence educational and career preferences.

The finding also contrasts with Transformational Leadership Theory, which assumes that effective institutional leadership should actively cultivate learners' motivation, confidence, and sustained engagement through inspirational motivation, individualized consideration, and consistent encouragement. The reported low interest among female students implies that these leadership mechanisms are not sufficiently effective in reshaping attitudes toward hard trade programmes. This finding suggests gaps in the intensity, consistency, or reach of transformational leadership practices within vocational institutions, resulting in limited impact on strengthening long-term commitment and engagement of female learners in male-dominated technical pathways.

The finding aligns with Berg and Blok (2021), who reported persistently low female engagement in technical and engineering vocational programmes in the Netherlands, attributing the pattern to gender stereotypes and limited early exposure to technical fields. Their study demonstrated that, despite

institutional efforts to expand access, female learners continued to show a weaker inclination toward sustained participation in hard trade pathways, particularly in occupations that had long been socially constructed as male-dominated. Similarly, the present finding reflects limited interest among female students in enrolling in and continuing hard trade programmes, indicating that gendered perceptions and exposure gaps remain influential determinants of participation across different vocational contexts.

Furthermore, the study examined the level of female students' attendance in hard trade classes in vocational training institutions. The data indicate that, regarding the statement that female students attend hard trade classes regularly and consistently, a slight majority of male students (42 respondents, 40.8%) agreed or strongly agreed, while a majority (56 respondents, 54.3%) disagreed or strongly disagreed. This data suggests that female students' class attendance is perceived as inconsistent, with a tendency toward irregular participation in scheduled learning sessions across hard trade programmes. The pattern reflects variability in engagement, indicating that attendance is not uniformly stable across institutions or training environments.

The data suggest that irregular attendance may hinder sustained skill acquisition and continuity in competency-based learning, where consistent participation is central to mastering both practical and theoretical components. Such inconsistency may be associated with institutional scheduling challenges, socio-economic pressures, or limited learning support systems, all of which affect regular attendance at class sessions. Consequently, the effectiveness of training outcomes may be uneven, as attendance interruptions reduce opportunities for progressive skill development and continuous assessment in vocational education settings.

The finding indicates that female students' attendance in hard trade classes is perceived as inconsistent, with a majority of respondents disagreeing that attendance is regular and continuous, while a slightly larger majority agreed. This pattern suggests uneven participation in scheduled learning sessions, with class attendance not stable across cohorts or training contexts. It reflects fluctuations in engagement that may vary by institution, programme structure, or learner circumstances, leading to non-uniform attendance behaviour within hard trade programmes.

The finding indicates that female students' attendance in hard trade classes is perceived as inconsistent, with a majority of respondents disagreeing that attendance is regular and continuous. In contrast, a slight majority reported agreement, reflecting uneven participation in scheduled learning sessions

across vocational institutions. This pattern aligns with Andiemba and Manasi (2021), who found that the distribution of the teaching workforce in VTCs was found to be male-dominated and therefore, female students did not have role models to look up to. The research also found out that majority of girls who were unable to proceed to secondary and tertiary education were not aware of the opportunities available in VTCs in the county.

The finding indicates that female students' attendance in hard trade classes is perceived as inconsistent, with a majority of respondents disagreeing that attendance is regular and continuous. In contrast, a slight majority reported agreement, reflecting uneven participation in scheduled learning sessions across vocational institutions. This finding contrasts with Sustainable Development Goal 4 (United Nations, 2015), which emphasizes inclusive, equitable, and continuous participation in quality education for all learners, as irregular attendance disrupts sustained learning, which is required for effective competency development. It also misaligns with Sustainable Development Goal 5 (United Nations, 2015), which promotes gender equality and full participation of women in education and skills training, since inconsistent engagement suggests persistent structural and socio-cultural barriers that limit stable involvement of female students in vocational training programmes.

The finding indicates that female students' attendance in hard trade classes is perceived as inconsistent, with a majority of respondents disagreeing that attendance is regular and continuous. In contrast, a slight majority reported agreement, reflecting uneven participation in scheduled learning sessions across vocational institutions. This pattern aligns with Transformational Leadership Theory (Burns, 1978; Bass, 1985), which emphasizes that consistent participation in learning environments is strengthened when institutional leaders provide structured support, motivation, and individualized consideration that sustain learner engagement. Where such leadership practices are uneven or insufficiently institutionalized, learner commitment and attendance may fluctuate, reflecting reduced reinforcement of continuous participation in competency-based training processes.

To triangulate the questionnaire data, the researcher conducted semi-structured interviews with two Principals and 25 female students to obtain deeper insight into female students' attendance in hard trade classes within vocational training institutions. The responses from female students indicated that participation in workshop and laboratory sessions is present but not consistently stable across training sessions, with engagement varying

depending on access to practical opportunities and institutional support. This view was consistently reflected by five respondents, who commented as follows:

We participate in workshop and laboratory activities, but our involvement is not consistent due to limited access to some practical sessions and occasional challenges in attending all scheduled activities alongside male counterparts.

The quotation indicates that female students are involved in workshop and laboratory activities; however, their participation is not consistent across all practical sessions. It reflects the presence of structural and operational constraints, including limited access to some workshops, scheduling difficulties, and possible competing responsibilities that reduce full attendance in practical training. The comparison with male counterparts further suggests that access to hands-on learning opportunities may not be equally distributed or consistently available, leading to irregular engagement. This response implies that, while inclusion exists in principle, practical participation is constrained by contextual barriers that hinder consistent involvement in competency-based vocational training.

The finding indicates that although female students do participate in workshop and laboratory activities, their engagement is not consistently sustained across all practical sessions. The finding suggests that access to hands-on training opportunities is irregular, with some students unable to fully attend or benefit from every scheduled practical activity. The variation in participation reflects underlying constraints such as limited availability of workshop space, scheduling conflicts, and possible institutional or personal factors that disrupt continuous attendance. As a result, female students' exposure to practical skill development is uneven, which may affect the continuity of competency acquisition in hard trade programmes.

The finding aligns with Nkosi and Maseko (2021), who found that female participation in hard trade programmes remained persistently low due to gender stereotypes, inadequate mentorship opportunities, and the widespread perception that technical occupations are male-dominated. These findings suggest that socio-cultural norms and institutional environments continue to shape female students' decisions to enroll and remain in technical vocational programmes. Similarly, the present finding indicates that female students participate in workshop and laboratory activities. Still, their engagement is not consistently sustained across all practical sessions, reflecting the continued influence of barriers that hinder full participation in hard trade programmes.

Again, the Principals' responses indicated that female students generally show limited interest in enrolling in and continuing hard trade programmes. The principals noted that although some female students choose technical trades, many remain reluctant to pursue or persist in these programmes due to prevailing perceptions about the suitability of hard trades for women, concerns about the demanding nature of the courses, and challenges associated with sustaining participation. This view was consistently expressed by the principals, who commented as follows:

Many female students are still hesitant to enroll in hard trade programmes, and some who initially join struggle to continue until completion. Negative perceptions about technical trades, limited encouragement, and concerns about the nature of the work often reduce their interest in pursuing these programmes over the long term.

The response implies that female students' interest in enrolling in and continuing hard trade programmes remains relatively low, as many are discouraged by negative perceptions of technical occupations, inadequate support and encouragement, and concerns about the demands associated with hard trades. It further suggests that while some female students enter these programmes, sustaining their commitment throughout the training period remains a challenge, thereby limiting their continued participation and progression in traditionally male-dominated vocational fields.

The study's findings indicate that female students' interest in enrolling in and continuing hard trade programmes remains limited, as many are reluctant to pursue technical fields and face challenges sustaining their participation once enrolled. This finding suggests that negative perceptions toward hard trades, inadequate encouragement, and concerns about the nature of technical occupations continue to influence female students' decisions to enter and remain in these programmes, thereby constraining their long-term participation in vocational training.

The study's findings align with Nkosi and Maseko (2022), who found that gender stereotypes, limited mentorship, and perceptions of male dominance in hard trades constrained female participation in TVET engineering and mechanical programmes. Similarly, the present finding indicates that female students show limited interest in enrolling in and continuing hard trade programmes, suggesting that persistent social perceptions and inadequate support mechanisms continue to reduce female learners' willingness to enter and remain in technical-vocational pathways.

The study's findings align closely with Gender Schema Theory (Bem, 1981), which posits that individuals construct cognitive frameworks for gender-appropriate roles through socialization. The observed limited interest of female students in enrolling and continuing in hard trade programmes reflects the internalization of culturally constructed beliefs that technical and mechanical occupations are predominantly male domains. As a result, such gendered perceptions shape educational choices, reduce self-perceived suitability for hard trades, and ultimately constrain both enrolment intentions and persistence in vocational pathways for female learners.

The study's findings also strongly contrast with Transformational Leadership Theory (Bass, 1985; Burns, 1978), which emphasizes that effective leadership should inspire, motivate, and empower learners to overcome structural and psychological barriers to participation. The limited interest demonstrated by female students suggests that existing leadership practices within vocational institutions may not be sufficiently effective in reshaping perceptions, challenging gender stereotypes, or providing the level of encouragement and mentorship required to sustain female engagement in hard trade programmes. This finding indicates a gap between the expected outcomes of transformational leadership and the observed levels of female participation in technical vocational education.

Conclusions

The study concludes that female students' participation in hard trade programmes in vocational training institutions remains low and inconsistent. Although some female students demonstrate confidence and willingness to engage in technical training, their overall representation and active involvement in workshop-based learning are still limited. The study further reveals that enrolment alone does not guarantee sustained participation, as many female students' experience reduced engagement or discontinue their studies due to negative societal perceptions of hard trades, inadequate support and encouragement, and challenges associated with learning in predominantly male environments. Therefore, the level of female participation in hard trade programmes is influenced more by social and institutional factors than by the students' abilities or interest in technical fields.

Recommendations

This section should capture recommendation for practical, policy and theoretical

Practical Recommendation

Implement awareness campaigns, mentorship programmes, guidance and counselling services, and create supportive, gender-inclusive learning environments to enhance female participation and retention in hard trade programmes.

Policy Recommendations

Develop gender-inclusive policies, provide scholarships and incentives, and establish strategies that promote equal opportunities and increase female enrolment and retention in hard trade programmes.

Theoretical Recommendations

Future studies should further examine the factors influencing female participation and retention in hard trade programmes to refine existing theories and generate new insights.

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Code-Switching as a Multilingual Communication Strategy in Group Discussions among Female Foundation Science Students at the Open University of Tanzania

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Abstract

This study investigated code-switching as a multilingual communication strategy among newly enrolled university students in Tanzania, focusing on common patterns, communicative functions, and perceived limitations. Guided by Communication Accommodation Theory (CAT) and the Markedness Model, the study employed a qualitative descriptive design within an interpretive paradigm. Twenty-two students at the Singida Regional Centre of the Open University of Tanzania were purposively selected, and data were collected through non-participant observations and focus group discussions and were analysed thematically. Findings revealed that inter-sentential and intra-sentential code-switching between English and Swahili predominated. Students used code-switching to clarify concepts, facilitate cognitive processing, promote social inclusion, express identity, maintain scientific accuracy, and bridge language-proficiency gaps. From a CAT perspective, these practices reflected convergence to enhance mutual understanding, while the Markedness Model demonstrated the social and academic meanings embedded in language choices. Students nonetheless perceived excessive reliance on code-switching as a potential constraint on English proficiency development. The study concludes that code-switching functions as both a communicative and pedagogical resource, with its effectiveness contingent on purposeful use alongside deliberate opportunities for English development. It recommends that Universities provide institutional guidance for bilingual practice, including lecturer-directed switching strategies, support for bilingual scientific terminology, and structured approaches that bridge Swahili-mediated discussion with English academic communication.

Keywords: Code-Switching, Group Discussion, Communicative Functions, Higher Education Language Policy, Multilingualism, Tanzania.

Introduction

Recent research shows that multilingualism, the ability to use more than one language, is a common and growing phenomenon worldwide (Cenoz &

Gorter, 2023; Projoga *et al.*, 2023; Zhao *et al.*, 2024; Haukas *et al.*, 2024; Mirzayeva, 2026). It has become an important subject of scholarly inquiry in sociolinguistics, psycholinguistics, applied linguistics, and educational research (Bhatt & Bolonyai, 2022; Liu & Hu, 2024) owing to its pervasive role in human communication (Gao & Yang, 2023). In higher education, multilingualism is regarded as a core dimension of communicative competence. It enables students to express themselves clearly, fosters critical thinking (Rayyona, 2026), cultivates cultural awareness, enhances creativity (Diaconu, 2022), and ultimately facilitates learning (Cenoz & Gorter, 2023). It also contributes to the development of unique knowledge among students and enriches both teaching and learning environments (Mbiri-Hungwe, 2023). Consequently, many Universities worldwide promote multilingual practices to prepare students for international careers, strengthen their communication skills, and enhance learning outcomes (Oliinyk *et al.*, 2024; Lasagabaster-Herrarte, 2023). In today's globalised world, multilingual communication enables people from diverse linguistic backgrounds to understand one another, exchange ideas, and collaborate more effectively (Padilla & Chen, 2025; Kalyani, 2025).

One defining feature of multilingual language practice is code-switching, the alternation between two or more languages or language varieties within or across sentences during a single communicative interaction (Poplack, 1980; Myers-Scotton, 1993). It operates at different structural levels, ranging from shifts across sentence boundaries (inter-sentential) to the embedding of elements from a language within the grammatical frame of another (intra-sentential). Independently of topic or interlocutor shifts, code-switching serves diverse communicative functions, including facilitating comprehension, emphasising ideas, and managing interactional relationships (Ahmad *et al.*, 2023; Mona, 2024). Code-switching is increasingly recognised as a natural feature of multilingual communication across all language modalities such as speaking, listening, reading, and writing, rather than an indicator of linguistic deficiency (Vida-Mannl *et al.*, 2023; Cedden *et al.*, 2025).

The conceptualisation of code-switching has evolved considerably over time. Initially, it was regarded as a big sign of weak language skills or low communicative competence in the target language (Haddad & Djemaoune, 2025), and it was commonly associated with social class, perceived as a strategy used by speakers to navigate interactions with higher-status interlocutors outside their social group (Tahir *et al.*, 2025). In educational settings, it was viewed as a source of language interference that could constrain learners' proficiency in the target language (Mzeil, 2025), limit the target-language exposure necessary for effective second language acquisition,

and disrupt the continuity of instructional delivery (Bardinas *et al.*, 2025). In contemporary sociolinguistic and educational research, however, code-switching is now widely recognised as a strategic communicative resource that multilingual speakers employ to negotiate meaning, facilitate comprehension, sustain interaction, and accomplish specific social and academic goals (Jusufi & Jusufi, 2024; Lautá & Estremera, 2025; Tenés *et al.*, 2023; Ramaila, 2025).

A growing body of literature demonstrates that code-switching serves various functions in multilingual educational backgrounds, particularly in classrooms where group discussions take place often. Students typically code-switch to express themselves more effectively (Candilas *et al.*, 2023), articulate their points with greater clarity (Ye, 2023), support mutual understanding among peers (Tyas, 2020), maintain conversational flow (Hafid & Margana, 2022; Kumari, 2024), and assert social identity (Susiawati *et al.*, 2025). It also enables students who are not self-assured in the language of instruction to participate meaningfully in discussions and learning activities (Torres, 2025). Code-switching is therefore not merely a marker of multilingual competence (Brdarević-Čeljo *et al.*, 2024) but a supportive communicative tool that facilitates learning among students from diverse sociolinguistic backgrounds (Gámez, 2023; Susiawati *et al.*, 2025). Rather than simply alternating between two languages or dialects, multilingual students draw on their integrated linguistic repertoire to construct meaning and communicate in stylistically varied ways (Treffers-Daller, 2025; Urbaite, 2025).

Research conducted in multilingual African contexts demonstrates that code-switching is a key communicative practice among students in countries where indigenous, national, and colonial languages coexist (e.g., Bamgbose, 2011; Banda, 2020; Probyn, 2020; Agbozo & ResCue, 2021; Knaus *et al.*, 2022). This practice is largely shaped by language policies that grant official status to colonial languages such as English, French, and Portuguese for educational and institutional communication (Bamgbose, 2011; Knaus *et al.*, 2022), while indigenous languages remain central to daily social, economic, and political life (Bamgbose, 2011; Banda, 2020). This gap between policy and practice has given rise to widespread code-switching, particularly in educational settings. Evidence from Nigeria, Kenya, Uganda, South Africa, Zimbabwe, Madagascar, and Namibia indicates that students employ code-switching to enhance comprehension, clarify complex ideas, negotiate meaning, construct social identities, build interpersonal relationships, and encourage participation in academic discourse (Probyn, 2020; Banda, 2020; Knaus *et al.*, 2022; Ngubane, 2025; Henok & Julius, 2026). Despite these benefits, code-switching remains largely unacknowledged in many African education systems, which continue to privilege official languages in academic contexts,

highlighting a persistent disconnect between language policy and classroom practice.

Evidence from Tanzania provides a particularly relevant context for examining code-switching as a multilingual communication strategy among university students. As a linguistically diverse society, with estimates ranging from 125 to 164 living languages, including Swahili, which serves as the national language and lingua franca (Polomé, 2017). Tanzanian university students come from varied linguistic backgrounds and routinely communicate in indigenous languages alongside Swahili and English, the official medium of instruction in higher education institutions (MoEST, 2023). This linguistic diversity seems to be a classroom learning challenge when group discussions are undertaken (Wijayanti, 2024), where clear communication, mutual understanding, and inclusive participation are essential for effective learning (Pattiasina *et al.*, 2025). As a result, code-switching has become a pervasive feature of academic interaction in Tanzanian tertiary institutions (Prosper, 2025; Fredinand, 2025; Razzaq, Rubagumya, & Mgimba, 2026).

Although code-switching among multilingual university students in Tanzania has been documented (Prosper, 2025; Fredinand, 2025; John & Prosper, 2026; Razzaq *et al.*, 2026), important gaps remain. Existing studies have largely focused on broader educational contexts, with no identified study exploring naturally occurring code-switching in student-led peer group discussions within a Foundation Science programme while simultaneously analysing its structural patterns and communicative functions. The combined application of Communication Accommodation Theory (CAT) and the Markedness Model to explain how and why students alternate between Swahili and English in such interactions also remains underexplored. Addressing these gaps is significant because peer-led discussions constitute a distinctive interactional space in which students negotiate meaning, accommodate peers, assert identity, and navigate scientific content through their multilingual resources.

Despite the official use of English as the medium of instruction in Tanzanian higher education (MoEST, 2023), students operate within a multilingual environment in which Swahili serves as a widely shared lingua franca. It therefore remains unclear which structural patterns students employ in such discussions and how these functions support comprehension, scientific communication, peer interaction, identity, and accommodation. The absence of such evidence limits understanding of how students negotiate the demands of English-medium science education while drawing on their full linguistic repertoire. The present study therefore examines the structural patterns and

communicative functions of code-switching among female Foundation Science students at the open and distance learning university in Tanzania.

Specific Research Objectives

- i) To identify the most common code-switching patterns employed in group discussions.
- ii) To interpret the communicative functions of code-switching patterns during group discussions.
- iii) To examine students' perceptions of the limitations of code-switching in group discussions.

Theoretical Framework

This study is informed by two complementary theoretical frameworks: Communication Accommodation Theory (CAT) and Myers-Scotton's Markedness Model. CAT was developed from Howard Giles's (1973) Speech Accommodation Theory and later expanded to explain how individuals adjust their communicative behaviour in response to interlocutors and social contexts. The theory identifies three key strategies: convergence, whereby speakers adapt their behaviour to become more similar to an interlocutor to aid understanding, reduce social distance, or gain approval; divergence, which involves emphasising communicative differences to assert group identity; and maintenance, through which speakers retain their existing communicative patterns. In multilingual contexts, these strategies are expressed through language choice and code-switching.

CAT is particularly relevant in multilingual settings such as Tanzania, where university students alternate between English and Swahili during group discussions. Through convergence, students may code-switch to facilitate mutual understanding, foster group cohesion, and accommodate peers with varying levels of language proficiency, thereby promoting a more inclusive and collaborative learning environment. Divergence may occur when students use English predominantly within a Swahili-dominant context to signal academic identity, demonstrate language proficiency, or distinguish themselves socially or intellectually. Maintenance is evident when students preserve English scientific terms within otherwise Kiswahili utterances. CAT thus positions code-switching as a deliberate communicative strategy through which students negotiate meaning and manage peer relations, directly informing the interpretation of the communicative functions of code-switching patterns in group discussions.

Myers-Scotton's Markedness Model was developed in the late 1980s and subsequently refined in the 1990s. The model complements CAT as it describes language choices as socially meaningful and shaped by the

perceived rights and obligations associated with particular interactions (Myers-Scotton, 1993). The model fundamentally focuses on the distinction between the Matrix Language (ML), which provides the syntactic structure of an utterance, and the Embedded Language (EL), from which lexical items are drawn. By examining participants' choices between the ML and EL, switches can be classified structurally as intra-sentential, inter-sentential, or tag switching. The model also differentiates between unmarked switching (expected and routine), marked switching (deliberately signaling a change in social relationship or interactional meaning), and exploratory switching (employed when speakers are uncertain about the appropriate language choice). Documenting the frequency of each structural type across interactions enables the identification of the most commonly employed code-switching patterns.

Therefore, CAT and the Markedness Model collectively provide an integrated analytical framework for this study. The Markedness Model supports the first objective by enabling the structural classification and frequency analysis of code-switching patterns. CAT informs the second objective by providing the conceptual tools to interpret whether those patterns represent acts of convergence, divergence, or maintenance within the social dynamics of group discussions. Thus, in this study, the two frameworks mutually enlighten how and why students shift between English and Swahili in response to contextual, linguistic, and social factors during academic interactions.

Empirical Literature Review

This section reviews empirical studies on code-switching practices, organised by communicative function in line with the study's research objectives, to broaden understanding of the topic and identify the gap the present study addresses.

Code-Switching Patterns

Scholars have classified code-switching both structurally and functionally. Blom and Gumperz (1972) distinguished situational switching, triggered by changes in setting, topic, or participants, from metaphorical switching, used for rhetorical emphasis. Poplack (1980), Ghyfari *et al.* (2025), and Al Yousef *et al.* (2025) identified three structural types: intra-sentential (within a clause), inter-sentential (across clauses or sentences), and tag-switching (insertion of a tag or phrase from one language into a sentence structured in another); Al Yousef *et al.* (2025) noted that inter-sentential switching is most prevalent among highly proficient bilinguals. In technical domains, Tejasri and Shri (2026) observed that limited L1 vocabulary often necessitates intra-sentential switching and introduced intra-word switching, where morphemes

from different languages blend within a single word. Murtiningsih *et al.* (2022) further showed that code selection reflects topic, context, participants, and social identities. These classifications inform the examination of switching patterns that newly enrolled university students in Tanzania may employ during group discussions.

Communicative Functions of Code-Switching in Multilingual Education

Research consistently treats code-switching as an effective communication strategy in multilingual educational settings (e.g., Gámez, 2023; Hafid & Margana, 2022; Kumari, 2024; Lautá & Estremera, 2025; Ramaila, 2025; Susiawati *et al.*, 2025). Komariah *et al.* (2020) define communication strategies as techniques speakers use to overcome linguistic difficulties and sustain interaction; Ramaila (2025) and Susiawati *et al.* (2025) add that, in multilingual education, these increasingly involve flexible language alternation. The empirical literature documents five main functional categories: comprehension, participation and inclusion, identity, terminological precision, and risk.

Comprehension

There is broad cross-contextual agreement that code-switching aids comprehension. Studies conducted in Indonesia (Hafid & Margana, 2022; Rohmana & Salsabil, 2024; Mulyani *et al.*, 2024; Sari, 2026), Malaysia (Elias *et al.*, 2022; Abdullah & Rahmat, 2025), Europe (Cicillini, 2023; Luporini *et al.*, 2024), Rwanda (Habintwali *et al.*, 2024), South Africa (Vilakazi *et al.*, 2024), Kenya (Jepkosgei, 2025), and Tanzania (Fredinand, 2025; John & Prosper, 2026) consistently report that switching enables learners to grasp complex ideas and access content more readily. Haddad and Djemaoune (2025) further note that it helps students bridge lexical gaps and maintain communication when target-language proficiency is limited.

A point of divergence concerns motivation. Luporini *et al.* (2024) and Habintwali *et al.* (2024) frame comprehension-driven switching as a response to proficiency gaps, whereas Tenés *et al.* (2023), working with learners in Switzerland and Germany, found that it reflects linguistic competence rather than deficiency, a position echoed by Jusufi and Jusufi (2024), who attribute switching to multilingual exposure, word retrieval, and communicative comfort rather than to inadequacy. For Tanzanian university students who use English as the medium of instruction but Swahili in everyday life, both motivations may operate simultaneously.

Participation and Inclusion

Code-switching is widely associated with broader learner participation and a more inclusive classroom climate. Lautá and Estremera (2025) found that it

enables students to contribute to discussion even without full target-language proficiency, helping them feel included and fostering a welcoming environment. Convergent findings come from Nigeria (Jegede, 2025), Kenya (Jepkosgei, 2025), South Africa (Vilakazi *et al.*, 2024), and Tanzania (Fredinand, 2025; John & Prosper, 2026), where switching facilitates active engagement among linguistically diverse learners. These convergent findings suggest that newly enrolled university students in Tanzania may code-switch during group discussions to ensure equitable participation, particularly in multicultural peer groups.

Identity

Beyond cognitive functions, code-switching carries social and identity-related meanings. Bonds (2025), studying African American school leaders in Chicago, found that switching allowed speakers to balance academic participation with vernacular identity, though it sometimes created tension between English use for academic purposes and the L1 for social comfort. Alruwaili (2023) and Karmanov (2023), drawing on US and Canadian data respectively, similarly report that switching signals group cohesion, shared ideology, and cultural acceptance; Canadian bilinguals showed particularly positive attitudes toward the practice. Savase and Ganmote (2025) and Kipchoge (2024) generalise these findings, arguing that switching affirms cultural identity and social integration. In Tanzania's ethnically diverse university peer groups, students may therefore code-switch to express identity and belonging, not merely to address communicative limitations.

Terminological Precision

A distinct function concerns domain-specific vocabulary. Where the L1 lacks equivalent terms, switching serves precision rather than compensation. Tejasri and Shri (2026) noted that technical fields frequently necessitate intra-sentential and intra-word switching for this reason. Cicillini (2023) found that EMI lecturers across five European universities switch to explain specialised vocabulary and address lexical gaps, and Jepkosgei (2025) reports comparable practices in Kenyan classrooms. Hafid and Margana (2022) and Fredinand (2025) document parallel uses, vocabulary translation, and technical-term translation likewise in Indonesian and Tanzanian contexts. Students, when discussing academic content in Tanzania, may similarly switch to Swahili when precise English terminology is unavailable or unfamiliar.

Risks

Despite its documented benefits, several studies caution against unregulated switching. Lautu and Estremera (2025), Hafid and Margana (2022), Mulyani *et al.* (2024), and Sari (2026) warn that excessive L1 use restricts target-

language exposure, producing recurring errors and avoidance of complex grammatical structures. Abdullah and Rahmat (2025) and Elias et al. (2022) stress the need to limit switching to maintain adequate English immersion. The most cautionary evidence comes from within Tanzania: Kambey and Vuzo (2022) found that code-switching in primary schools negatively affected English proficiency and contributed to examination difficulties. This finding stands in tension with Fredinand (2025) and John and Prosper (2026), who document productive functions at higher levels of the same system. This internal contradiction suggests that newly enrolled university students must navigate a genuine trade-off between short-term communicative support and longer-term English language development.

The empirical literature confirms that code-switching is a multifunctional strategy in multilingual education. Agreement is strongest in its comprehension-facilitating and inclusion-supporting roles; its identity function involves a documented tension between social comfort and academic expectations; and whether switching reflects a deficiency in proficiency or linguistic competence remains contested. The literature does not yet address how this strategy operates among newly enrolled university students in Tanzania during peer group discussions. This study therefore investigates the patterns, functions, and motivations of language switching in that specific context.

Research Methodology

Research Approach and Design

This study employed a qualitative descriptive design within an interpretive research paradigm to understand code-switching practices in group discussions at the Open University of Tanzania (Sandelowski, 2000, 2010; Villamin *et al.*, 2025). The design enabled the researcher to observe, describe, and interpret naturally occurring language alternation during group discussions. A preliminary familiarisation visits in June 2025 indicated that newly enrolled multilingual university students communicated more naturally when they were free to use languages beyond English as the medium of instruction.

Data were collected over two months, from July to August 2025, focusing on students' language alternation practices to examine how and why they engaged in code-switching during academic discussions (Villamin *et al.*, 2025). The descriptive design enabled participants to share their experiences in detail, affording the researcher a comprehensive understanding of how newly enrolled university students drew on different languages during group discussions (Thorne, 2025).

Research Site

This study was conducted at the Singida Regional Centre of the Open University of Tanzania (OUT). The centre was selected because it hosted a special foundation science programme for female students across the country, designed to help them meet university admission requirements. It offered a suitable setting for this study, as it reflected Tanzania's multilingual diversity (Pérez Cañado, 2023). As suggested by Tibategeza (2010, bringing students from various regions, it results in a diverse linguistic background.

Methods and Instruments

Data were collected through non-participant observation and focus group discussions (FGDs). After establishing rapport with participants, the researcher was present during three group discussions without obstructing the proceedings (Thorne, 2025). The observed groups were engaged in discussions of science subjects, namely Physics, Chemistry, and Biology. The three groups included 22 participants: 7 in the first group, 7 in the second group, and 8 in the third group, respectively. Each group was observed on four occasions at two-week intervals to determine the recurrence of code-switching practices (Morgan, 2024), yielding 12 observed sessions in total. Each discussion lasted approximately 50 to 65 minutes.

As a non-participant observer, the researcher recorded all observations without interfering the participants. Guided by an observation checklist, the researcher took field notes and made audio recordings of the discussions to support thorough analysis. The checklist facilitated the systematic documentation of code-switching practices as they emerged in authentic settings (Villamin *et al.*, 2025), capturing both structural patterns and communicative functions.

Following the observation period, three FGDs were conducted with the same participants. The discussions were moderated by the researcher and supported by a note-taker, and were held in a quiet classroom at the Singida Regional Centre of the OUT, where participants felt at ease. These face-to-face, in-depth FGDs brought participants together to discuss their language practices (Anis & Olisa, 2024). Each session lasted approximately 45 to 55 minutes. Open-ended questions guided the discussions, focusing on language alternation practices, principally between English and Swahili, and their communicative roles, with flexible probing employed to generate detailed information relevant to the research objectives.

All FGDs were conducted in Swahili to enable participants to express themselves freely and were audio-recorded to capture their accounts of code-switching practices accurately (Thorne, 2025; Villamin *et al.*, 2025). The

recordings were then transcribed verbatim in Kiswahili and analysed in the original language to preserve linguistic features and meaning. English translation was subsequently prepared for presentation in the findings. During translation, particular attention was paid to maintaining the intended meaning and contextual nuances of the original Kiswahili. In the Findings chapter, original Kiswahili extracts are presented alongside their English translations to allow readers to evaluate the fidelity of the translations. Observations documented students' code-switching practices, patterns, and functions, while FGDs elicited participants' accounts of why they alternated between Swahili and English. Together, these methods provided a comprehensive understanding of how code-switching operates as a communicative strategy among university students in Tanzanian multilingual contexts (Morgan, 2024).

Recruitment of Participants

The study population comprised newly admitted female university students enrolled in the special foundation science programme at the Singida Regional Centre of the OUT. These participants were selected because they represented the linguistic diversity characteristics of Tanzania's multilingual society. In addition to their vernacular languages (Tibategeza, 2010), they had been exposed to Swahili as the medium of instruction in primary education and to English in secondary education (MoEST, 2023). Participants were purposively selected based on their self-reported preference for group discussions as a learning strategy. During screening, students were asked whether they regularly engaged in group discussions when undertaking academic activities. Those who indicated a clear preference and were willing to participate were included, while those who did not regularly engage in group discussions or were unwilling to participate were excluded. These criteria ensured that participants had sufficient experience with group interaction for examining code-switching in naturally occurring communication.

The sample comprised 22 students, a size determined by data saturation. Data collection continued until saturation was reached, indicated by the absence of substantially new codes or patterns during the final two observation rounds and the third FGD (Hennink & Kaiser, 2022). Given that the study employed reflexive thematic analysis, saturation was treated cautiously as an indication of sufficient depth of information rather than as a claim that all possible meanings had been exhausted (Braun & Clarke, 2023).

The participants varied in age, geographical background, first language, and type of secondary school attended. These characteristics were considered relevant to the study because participants' linguistic backgrounds and

educational experiences may shape their language practices in group interaction settings (Syam *et al.*, 2023). Each participant was assigned an anonymous identifier from P1 to P22 in the order of recruitment.

Table 1:
Participants' Background Characteristics

Participant's Anonymous Name	Age	Region of Origin	First Language	Type of Primary School
P1	21	Iringa	Hehe	English medium
P2	19	Tanga	Sambaa	Swahili medium
P3	21	Singida	Nyiramba	Swahili medium
P4	20	Mtwara	Yao	Swahili medium
P5	22	Mwanza	Sukuma	Swahili medium
P6	20	Mbeya	Safwa	English medium
P7	21	Singida	Nyaturu	Swahili medium
P8	19	Kilimanjaro	Chaga	English medium
P9	22	Dodoma	Gogo	English medium
P10	21	Dar es Salaam	Swahili	English medium
P11	19	Morogoro	Luguru	Swahili medium
P12	20	Ruvuma	Ngoni	Swahili medium
P13	19	Kigoma	Ha	English medium
P14	21	Shinyanga	Sukuma	Swahili medium
P15	19	Lindi	Makonde	Swahili medium
P16	19	Kagera	Haya	English medium
P17	21	Rukwa	Fipa	Swahili medium
P18	20	Tabora	Nyamwezi	Swahili medium
P19	22	Kigoma	Ha	Swahili medium
P20	21	Dodoma	Gogo	English medium
P21	19	Manyara	Iraqw	Swahili medium
P22	20	Njombe	Bena	Swahili medium

Source: Research data, 2025.

Data Analysis

This study analysed data using reflexive thematic analysis, following Braun and Clarke's (2006) six-phase approach: familiarisation, coding, theme development, theme review, theme definition, and report production. Both datasets, drawn from non-participant observations and FGDs, were processed using this method. Observation checklists were reviewed to identify and label relevant code-switching patterns, which were subsequently grouped to establish initial themes. The translated FGD transcripts were similarly examined to identify code-switching patterns and their communicative functions. Patterns and functions were coded, organised into themes, and refined for consistency and analytical relevance before interpretation. Refined themes were presented with supporting participant quotations to illustrate the findings.

Trustworthiness of the Findings

The trustworthiness of the study was established through four principles proposed by Lincoln and Guba (1985): credibility, transferability, dependability, and confirmability. Credibility was supported through prolonged engagement with the study setting across four observation rounds and triangulation of observational and FGD data. Transferability was addressed through detailed descriptions of the study setting, participants, and interactional contexts to enable readers to assess the applicability of the findings to similar contexts. Dependability was enhanced through a pilot observation, which informed the refinement of observation procedures, and through maintaining detailed records of all procedural and analytical decisions throughout the research process. Confirmability was supported by grounding interpretations firmly in the data and using verbatim extracts to illustrate the findings.

Research Ethics

Ethical approval for this research was obtained from the Research Ethics Committee of the OUT, with a research permit subsequently granted by the Ministry of Education, Science, and Technology. Permission to conduct the study was further obtained from the Singida Regional Administrative Secretary, the District Executive Director of Singida Municipality, and the Director of the Singida Regional Centre of the OUT. Before participation, all 22 participants were informed of the study's purpose and procedures, the voluntary nature of participation, their right to confidentiality, and their right to withdraw at any time without repercussion. Written informed consent was obtained from all participants, including specific consent for audio recording. To protect participants' identities, anonymous identifiers were assigned from P1 to P22 in the order of recruitment. All audio recordings, transcripts, and related data are stored securely in password-protected electronic files accessible only to the researcher and will be retained for six months before secure deletion.

Findings

This study aimed to investigate code-switching practices as a communicative strategy during group discussions among the newly enrolled university science students in Tanzania. Specifically, the study sought to: (1) identify the most common code-switching patterns employed in group discussions; and (2) interpret the communicative functions of code-switching patterns during group discussions. Table 2 shows the categories and themes generated from data.

Table 2:
Major Findings

Category of Data	Themes
Code-switching patterns in group discussions	Intra-sentential code-switching Inter-sentential code-switching
Communicative functions of code-switching patterns	Explanation and clarification Promoting understanding and cognitive processing Facilitating social interaction and inclusive participation Revealing habitual and natural practice Expressing identity, personality, and status Bridging language proficiency gaps
Shortcoming of Code-switching	Swahili overreliance and English proficiency

Source: Research data, 2025

1. Code-Switching Patterns identified in Group Discussions

Data from non-participant observations and FGDs revealed that the two predominant code-switching patterns employed by newly enrolled university science students during group discussions were inter-sentential and intra-sentential code-switching, occurring primarily between English and Swahili. Notably, no use of any native language was observed during the group discussions, whether for greetings or academic communication. This is likely attributable to the linguistic diversity within the groups, as students came from various ethnic backgrounds with mutually unintelligible native languages.

a) Inter-Sentential Code-Switching

The data revealed that newly enrolled university science students alternated between English and Swahili at sentence or clause boundaries. During group discussions, students were commonly observed to introduce points or scientific concepts in English, the medium of instruction before switching to Swahili, the national lingua franca, to elaborate, clarify, or rephrase for better comprehension. This pattern is illustrated in the following extract from Group 2, during a discussion of photosynthesis:

P4: *Mimi sijaelewa maana ya photosynthesis. ['I don't understand the meaning of photosynthesis.']*

P12: *Photosynthesis is the process through which green plants make their own food using sunlight, chlorophyll, carbon dioxide, and water. Kwa hiyo, photosynthesis ni mchakato ambao mimea ya kijani hujitengenezea chakula kwa kutumia mwanga wa jua, hewa ya carbon dioxide, maji, na krolofili.*

P4: *Aaah, sasa nimeelewa. Kwa hiyo mwanga wa jua, maji, krolofili, na kabonidayoksaidi ni mahitaji muhimu katika process ya photosynthesis. ['Ah, now I understand. Therefore, sunlight, water, chlorophylls, and carbon dioxide are important requirements in the process of photosynthesis.']*

P12: *Ndiyo. ['Yes.']*

This extract gives empirical evidence of inter-sentential code-switching. P12 initially explained the concept of photosynthesis in English and immediately restated the explanation in Swahili. The Swahili utterance was rephrased and clarified the preceding explanation, and P4 subsequently indicated that they understood the concept.

Similarly, evidence from Group 1, who discussed atomic structure, revealed the prevalence of an inter-sentential code-switching pattern:

- P6: *An atom is made up of three main particles: protons, neutrons, and electrons. Yaani, atom inaundwa na chembe kuu tatu, ambazo ni protoni, niutroni, na elektroni.*
- P9: *Aaah, sasa nimeelewa. Kumbe hizo ndizo particles zinazounda atom. ['Ah, now I understand. So, those are the particles that make up an atom.']*
- P6: *Ndiyo. ['Yes.']*

The extract illustrates inter-sentential code-switching because P3 alternated from English to Swahili at sentential boundaries. The Swahili sentence does not introduce new information; instead, it rephrases and clarifies the preceding English explanations. P9's response suggests the switch served to rephrase and clarify, making the scientific concept more accessible in the group discussion.

This inter-sentential pattern was also evident in the data from FGDs, when a participant said:

We usually switch the languages, either from English to Swahili when explaining scientific concepts, because the majority of us want to know in Swahili what that concept means... and then back to English (P3).

These findings indicate that this code-switching pattern enabled group members with different levels of English proficiency to follow the discussions more effectively and understand the concepts being discussed, ultimately contributing to their mastery of the content.

b) Intra-Sentential Code-Switching

The data revealed that the newly enrolled university science students mixed languages, Swahili and English, at a sentence or clause level. During group discussions, students were often observed embedding English technical terms within Swahili sentences, especially for scientific vocabulary that has no direct or precise translation, such as chemical formulas and terminologies. The following observational extract from Group 3 provides an example:

- P10: *Kwa hiyo, kwenye formula ya water tunaandika H₂O, ambapo H inasimama kwa hydrogen na O ni oxygen. ['So, in the formula for water, we write H₂O, where H stands for hydrogen and O stands for oxygen.']*
- P8: *Halafu hiyo subscript 2 inaonesha kwamba kuna atoms mbili za hydrogen, siyo? ['And that subscript 2 shows that there are two hydrogen atoms, right?']*
- P17: *Yes, exactly. Kwa hiyo molecule moja ya water ina two hydrogen atoms na one oxygen atom. ['So, one water molecule has two hydrogen atoms and one oxygen atom.']*
- P1: *Sasa nimeelewa, kwa sababu nilikuwa naona hiyo 2 kama sehemu ya formula tu bila kujua maana yake. ['Now I understand, because I used to see that 2 as just part of the formula without knowing what it meant.']*
- P21: *Ndiyo, kila symbol kwenye chemical formula ina maana yake. ['Yes, every symbol in a chemical formula has its own meaning.']*

Data indicate that students alternated between English and Swahili within utterances. While English was retained for scientific terminology, such as *hydrogen, formula, oxygen, atoms, subscript, and chemical formula*, Swahili provided the grammatical structure for explaining relationships among these concepts. This suggests that code-switching is a valuable strategy to facilitate discussion of scientific concepts, as participants may combine familiar Swahili expressions with the English terminology used in their academic materials.

This was also revealed in the data from FGDs, whereby one participant clarified that:

Sometimes we mix languages, mainly Swahili and English, because, like in science, there are some words that you cannot change, such as chemical formulas and terminologies. You have to use them the way they are in English to maintain their scientific essence (P1).

Based on these findings, it is plausible to argue that despite the alternation of languages during discussion, students maintained the scientific accuracy and integrity of concepts while communicating in a more accessible language.

2. Communicative Functions of Code-Switching Patterns

Based on the data collected in this study through non-participant observations and FGDs, it was found that the identified code-switching patterns, namely inter-sentential and intra-sentential, served various communicative functions among the newly enrolled university science students during group discussions, as further presented below:

a) Explanation and Clarification

The data showed that code-switching was extensively used to explain complex scientific concepts and clarify English technical terms. The students in group discussions normally used inter-sentential patterns to explain and

clarify some concepts. They were observed extensively switching to Swahili when explaining and clarifying questions, complex scientific concepts, and terms. This function was especially important when students often encountered ambiguous or unfamiliar academic terms. Consider the following extract from the observation:

P7: *Nilivyoelewa mimi ni kwamba, a resistor is a component that opposes the flow of electric current. Kwa hiyo, resistor inapozidi, mkondo wa umeme hupungua kwenye saketi. [‘The way I have understood is that... Therefore, when the resistance increases, the electric current decreases in the circuit.’]*

The data from FGDs also indicated that code-switching was often used to clarify or explain scientific terms. This was confirmed by the participants in the following extracts:

When discussing, it happens that some of us cannot understand certain vocabulary and the contextual meaning of a given word, so we will have to code-switch so as to support one another to understand (P11).

Another participant added that:

During discussions, we code-switch particularly when giving examples and clarifying scientific terms... we often use Swahili during learning so everyone can understand (P22).

These findings indicate that code-switching was used by the newly enrolled university science students as a scaffolding strategy to facilitate their comprehension, ensuring no participant was left behind during the discussion.

b) Promoting Understanding and Cognitive Processing

The dataset revealed that Swahili, being the national language and mainly the first or dominant language for many students, served as the language of thought and everyday communication. Students stated that alternating to Swahili helped simplify abstract scientific ideas and connect them to practical and real-life examples. The following quotations were relevant to justify this perception:

Swahili is made in Tanzania and is the first or dominant language for the majority of us, so we think in Swahili, and we understand better in Swahili, so we shift from English to Swahili in order to understand each other (P15).

Another participant clarified that:

Using Swahili, a common language for many of us, helps in putting a topic more practically. That's why I usually code-switch to Swahili... to interact with others and take the real situation into account (P6).

These findings highlight the cognitive benefits of code-switching, enabling students to internalise and negotiate meaning successfully in a language they use for their daily communication.

c) Facilitating Social Interaction and Inclusive Participation

The data showed that code-switching was a useful technique to facilitate interaction and inclusive participation among students with their learning diversities. With the varied students' English proficiency levels, alternating to Swahili could provide a common ground that encouraged participation from all members during the group discussions. Some students explained this function as reported hereafter:

We, the students, are enrolled in the university with varied backgrounds, understanding, and English proficiency. In such situations, switching to Swahili becomes helpful for us to interact in learning and group discussions successfully (P5).

Another participant had the following opinion:

Despite the cultural diversities, we are bound to one another. Sometimes it happens that when you explain something to your fellows in English, you feel like they don't understand, so using Swahili comes naturally (P20).

These findings underscore the role of code-switching in building a collaborative and supportive learning environment. They also show its impact on enhancing collaboration, mutual assistance, and social interaction within group discussions, regardless of students' differences in cultural backgrounds, comprehension levels, or English language proficiency.

d) Revealing Habitual and Natural Practice

Research data indicated that code-switching was used habitually and naturally as a common practice. Students were often observed during group discussions switching to Swahili from English as a common practice, without any other necessary contextual reason, such as technical terms and explaining concepts. This practice was because they were used to code-switching in their normal conversation. Consider the following example from observation data:

P22: *Kwa kuongezea* ['In addition'], *photosynthesis happens in the chloroplast.*

This observation was supported by some participants who insisted that code-switching had become an automatic and habitual practice, deeply embedded

in their language behaviour during group discussions, just because they often practice it in their daily formal and informal conversations. One of them said the following:

We find ourselves code-switching unnecessarily because we are used to it. Code-switching has become part and parcel of our language practices... even in our informal communication, we just do it as a common practice (P10).

Another student commented on the following while explaining the way code-switching is regarded as a natural practice in learning groups, as in other communication:

Code-switching in learning groups is a common practice, and it comes naturally just because it involves conversations among participants (P17).

It was also discovered that students prefer re-explaining concepts in Swahili after explaining them in English. One participant opined the following about this:

During group discussions, code-switching is taken as normal. You explain the concept in English and then repeat it in Swahili even if not necessary (P6).

These findings suggest that code-switching functions not only as a communicative strategy but also as a socially embedded linguistic practice that has become normalised within everyday interaction among these students.

e) Expressing identity, Personality, and Status

The data indicated that students code-switched as a marker of their identity, social status, educational background, or personal comfort with either language. During group discussions, students were observed alternating languages as a way of expressing their personality, as determined by accents and pace during contributions. This was also evident in the data from FGDs, whereby students declared that code-switching was an instrument of expressing their identity, personality, status, and educational background. It helped them identify the areas they came from, whether rural or urban areas, their exposure to the languages being used, or the schools they studied in the previous education levels. Concerning this matter, one student said:

Sometimes, code-switching is used for people to express their identity, status, personality, and educational background. Based on the language proficiency in either English or Swahili, it is easy to recognise the area where someone comes from, the status of the schools he or she studied before this level, whether English-medium or not, and his or her exposure to specific language (P13).

Another student said the following while explaining the presence of students who could discuss in English without code-switching because of having a good command of English, as they studied in English-medium schools since the early stages of education:

In addition, there are some students who may not code-switch because they can speak English fluently, which indicates that they went to English-medium schools. However, they are forced to code-switch because there are also others who cannot endure discussions led in English throughout (P9).

These findings highlight that code-switching serves not only pragmatic but also symbolic and identity-related purposes.

f) Maintaining Scientific Accuracy

The body of data showed that code-switching was strategically used by students within their learning group discussions to maintain the scientific accuracy of the discussed content. It was observed that students regularly preserved English scientific terminologies and technical terms within Swahili discourse during group discussions.

P2: *Nafikiri tunakumbuka kuwa enzymes zinasaidia katika digestion. ['I think we remember that enzymes help in digestion.']*

This was also evident for scientific theories, principles, and formulas.

P16: *Usichanganye ['don't confuse'] atomic structure na ['and'] atomic theory. Atomic Structure is the arrangement and organisation of the particles that make up an atom; wakati ['while'] Atomic Theory is a scientific explanation that all matter is made up of particles called atoms.*

This was attributed to several factors: first, students were not informed of their equivalent translations in Swahili. Second, students believed that their equivalent terms in Swahili could hinder them from grasping the terms immediately. Lastly, the equivalents in Swahili could mislead them in exams because English is the medium of instruction used for assignments, presentations, and examinations. One participant remarked the following concerning this:

Even if most of us are used to Swahili, we do not code-switch everything that we learn. Scientific terms, principles, formulas, and theories are typically retained in their scientific form primarily for ease of understanding and to answer exams more effectively (P7).

Another participant added that:

That is true. We are also not familiar with the equivalent scientific terms in Swahili, as you may find that the Swahili term is hard even to pronounce. Again, we may mislead ourselves because we cannot encounter Swahili terms in exams (P19).

These findings suggest that code-switching can be used strategically to accommodate the constraints imposed by the technical nature of scientific language, without undermining academic integrity or the conventions of a specific field.

g) Bridging Language Proficiency Gaps

The data-set revealed that students code-switched to fill the gaps in language proficiency, particularly among bilingual or multilingual learners with unequal competence in the languages involved. During group discussions, participants frequently resorted to code-switching when they encountered gaps in vocabulary or grammatical structures in the target language. Students mainly switched to their stronger language (usually Swahili) to maintain the flow of communication and express intended meanings accurately:

- P2: ... chlorophyll is important because it absorbs light energy from the sun during photosynthesis.
- P3: Hapo kwenye it absorbs light energy sijaelewa vizuri. Chlorophyll inafanya nini hasa? [*'I have not understood "it absorbs light energy" clearly. What exactly does chlorophyll do?'*]
- P4: ... Inamaanisha kuwa, chlorophyll inasaidia mmea kufyonza mwanga wa jua, ambao ndiyo nishati inayotumika wakati wa photosynthesis. [*'... It means that chlorophyll helps the plant absorb sunlight, which is the source of energy used during photosynthesis.'*]
- P3: Kwa hiyo, bila chlorophyll mmea hauwezi kupata energy ya mwanga wa jua inayohitajika kwenye process? [*'Therefore, without chlorophyll, the plant cannot obtain the light energy needed in the process?'*]
- P5: Yes. Ndiyo maana [*'Yes. That is why'*] chlorophyll is important in the process of photosynthesis.
- P3: Aaah, sasa nimeelewa. Nilikuwa sielewi vizuri hiyo [*'Ah, now I understand. I did not understand'*] "*absorbs light energy.*"

Similarly, evidence from FGDs revealed that students alternated between Swahili and English to bridge the gaps in English proficiency. Alternation to Swahili was considered useful to enable continuous interaction rather than communication breakdown. Regarding this concern, one student stated:

In my opinion, code-switching between Swahili and English is used to overcome the challenges of not being conversant in English. So, Swahili helps us maintain communication when we fail to communicate or grasp some concepts in English (P11).

Generally, these data show that code-switching functions as a bridge across language proficiency gaps. It enables students to overcome temporary linguistic limitations, sustain communication, and access learning content more effectively. This suggests that code-switching should be viewed not as a deficit but as a valuable, context-sensitive resource in bilingual and multilingual educational settings.

3. Shortcomings of Code-Switching

Despite the notable benefits of code-switching, the dataset revealed that it is subject to several challenges and limitations. The research data indicated that language alternation may hinder the mastery of English among students. Through FGDs, students clarified that overreliance on Swahili in academic discussions may reduce or delay their proficiency and fluency in English, which are significant for their academic success and future employment. One participant had the following opinion regarding the way code-switching may affect students' communication and understanding in learning, especially in group discussions:

Although code-switching is common in our learning, the dominance of Swahili in learning at our level can make us not develop or delay developing necessary skills in the English language...It takes some time to process the information discussed in Swahili into acceptable English during presentations and examinations (P14).

Another student shared the following opinions on how overusing code-switching without caution limits explanations in English during examinations and presentations:

I see that if code-switching is overused without caution, it can make it difficult to use English during presentations or to answer examinations. A student may understand something in Swahili, but then fail to explain it in English, especially in presentations and examinations (P18).

Similarly, another student contributed the following views regarding the strategic use of code-switching to mitigate the limitations of its overused practices:

... I think code-switching should not be used just anywhere; it should be used strategically, especially for a clear purpose, such as explaining or clarifying something that seems not to be understood (P15).

These findings highlight the need for a formal framework for code-switching to be implemented within higher learning institutions, without undermining students' proficiency in English, to enhance more effective learning outcomes.

Discussion

This study investigated code-switching as a communicative strategy during group discussions among newly enrolled university science students in Tanzania. The findings showed that inter-sentential and intra-sentential code-switching were the predominant patterns, occurring primarily between Swahili and English. Ghyfari et al. (2025) and Al Yousef et al. (2025) similarly identified these patterns among bilingual learners. Tejasri and Shri (2026) further observed that technical subjects commonly generate intra-sentential switching because specialised terminology may not have readily available equivalents in the other language, consistent with the frequent embedding of English scientific terms within Swahili sentences observed across Biology, Chemistry, and Physics discussions.

The prominence of code-switching patterns can be understood in relation to the Tanzanian foundation-science context, where three linguistic conditions intersect: English is strongly associated with scientific terminology and academic assessment, Swahili functions as a widely shared national lingua franca, and students enter the university with different levels of exposure to English. Consequently, students can discuss concepts in the more accessible Swahili while retaining English terminology where disciplinary precision is important. From the Markedness Model, such choices can be understood as meaningful language selections shaped by the expected social and academic consequences of using one language rather than another (Myers-Scotton, 1993). English technical terms may represent the unmarked choice for specialised scientific content, whereas switching to Swahili can constitute an unmarked or accommodative choice for maintaining mutual understanding among peers. In some instances, however, English may acquire a marked function by indexing academic identity, English-medium educational background, or technical competence.

The findings also showed limited evidence of situational switching because participants, discussed topics, and interactional settings remained relatively stable. This supports the distinction between the structural and functional dimensions of code-switching: intra-sentential and inter-sentential switching describe where switching occurs, whereas situational and metaphorical switching concern its communicative function (Blom & Gumperz, 1972). Some intra-sentential switches nevertheless had metaphorical functions when English was used to signal academic identity or familiarity with formal educational discourse. The P9 account particularly illustrates the interaction between identity and accommodation. Students who were fluent in English and had attended English-medium schools could maintain English, thereby distinguishing themselves from less English-proficient peers. However, their shift to Swahili when other group members could not sustain English-only

discussions represents convergence, as they accommodated the linguistic abilities of their peers (Giles, 1973). Thus, the same interaction may involve both linguistic distinction and convergence depending on the communicative needs of participants.

The findings further indicate that code-switching supported comprehension, explanation, social interaction, inclusivity, cognitive processing, and the maintenance of scientific accuracy. These functions are consistent with CAT, as students adjusted their language use to reduce communicative difficulty, accommodate peers, and maintain effective interaction (Giles, 1973). In this sense, code-switching was not merely a deficiency-driven response but a resource for negotiating the demands of scientific discourse and peer interaction.

The limited use of other Tanzanian languages is also significant. Although students came from diverse regional linguistic backgrounds, Swahili appeared to function as a common linguistic space that enabled broad participation. From a language-policy perspective, this finding highlights the importance of recognising multilingualism beyond a simple Swahili–English binary and considering whether institutional language practices unintentionally marginalise other local languages.

The findings can also be situated within the broader debate between code-switching and translanguaging. From a translanguaging perspective, students may be understood as drawing flexibly on their entire linguistic repertoire to make meaning rather than switching between two clearly bounded languages (Treffers-Daller, 2025). However, the term code-switching is retained in this study because the analysis specifically identifies observable alternations between Swahili and English and examines their structural patterns and communicative functions. The translanguaging perspective nevertheless complements these findings by emphasising the strategic use of available linguistic resources rather than operating within completely separate language systems.

Importantly, the findings reveal a tension between students' positive perceptions of code-switching and their concern that excessive switching may weaken English proficiency. This finding is consistent with Lauta and Estremera (2025), Hafid and Margana (2022), Mulyani et al. (2024), and Sari (2026), who caution that excessive reliance on the first language can reduce opportunities for target-language development. From a CAT perspective, convergence towards the group's preferred language may improve immediate interaction but may conflict with the longer-term academic goal of developing English proficiency. The findings therefore suggest that the issue is not whether code-switching should be discouraged, but how it can be used

purposefully while maintaining sufficient opportunities for sustained academic English practice.

Limitations of the Study

The following limitations should be acknowledged. First, all participants were female students enrolled in a science foundation programme at one university in Tanzania. This reflects the characteristics of the study setting rather than a deliberate focus on gender; therefore, gender differences in relation to code-switching could not be examined, and the findings have limited transferability to male students, other programmes, and institutions. Second, the identification of code-switching patterns relied primarily on the researcher's field notes without a second coder or inter-coder check, which may have introduced interpretive bias. Third, the findings from the focus group discussions reflect participants' self-reported perceptions, which may not fully correspond to their actual language practices. Fourth, translating participants' Swahili responses into English may have resulted in some loss of linguistic and contextual meaning. Finally, the eight-week observation period preceding the FGDs may have influenced participants' subsequent responses, potentially affecting the authenticity of the data. Future research should include more diverse participants across genders, programmes, and institutions, employ multiple coders, triangulate self-reported data with direct observation or recorded interaction, and apply rigorous translation procedures to strengthen the credibility and transferability of the findings.

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Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to appropriate ethical and confidentiality considerations.

Ethics Approval Statement

Ethical approval for this study was obtained from the Open University of Tanzania (Ref. No. OUT/DRPI/Staff/No.47/2026). All participants provided informed consent before participating in the study. Participants willingly participated in this study, and they were assured of their right to withdraw at any time during the study.

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Examining the Role of Advisory Board Accountability in Enhancing the Performance of Technical Education Institutions: Evidence from the Tanzania Institute of Accountancy

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Abstract

This study investigates the impact of advisory board accountability on the performance of Technical Education Institutions (TEIs) in Tanzania, with a focus on the Tanzania Institute of Accountancy (TIA). Adopting a qualitative case study approach, the research draws on in-depth interviews with key institutional stakeholders and analysis of relevant documents. The study argues that board accountability is a pivotal determinant of TEI performance, directly contributing to improved enrollment, infrastructure development, and stakeholder satisfaction when mechanisms such as transparency, ethical leadership, and stakeholder engagement are effectively implemented. However, challenges such as overlapping regulatory mandates and limited financial autonomy moderate these positive effects. The research critically contrasts effective governance theory with alternative governance frameworks, justifying its theoretical approach while acknowledging contextual complexities. Recommendations include strengthening accountability mechanisms, harmonising regulatory frameworks, and enhancing institutional autonomy. The findings offer practical insights for policymakers and institutional leaders seeking to advance governance and performance in technical education settings in Tanzania and comparable contexts.

Keywords: *Governance, board accountability, technical education institutions, institutional performance, Tanzania*

Introduction

Effective governance is increasingly recognised as a cornerstone for the performance, relevance, and sustainability of higher education institutions

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worldwide. As technical education institutions (TEIs) adapt to rapid technological change and shifting societal demands, the imperative for accountable and responsive governance has grown stronger, particularly in developing contexts like sub-Saharan Africa (Sentius, 2022; World Bank, 2021). However, while robust governance is often cited as a solution to institutional challenges, the mechanisms by which governance—especially at the board level—translates into improved institutional performance remain contested and under-explored, particularly within African TEIs (Marijani & Manase, 2020; Belgaroui & Hamad, 2021).

Despite an expanding international literature on the importance of governance, TEIs in sub-Saharan Africa, including Tanzania, have a critical gap regarding the performance and impact of advisory board accountability in technical education settings in Africa. Much of the existing research is descriptive, focusing on the presence or absence of governance practices rather than systematically analysing how different accountability mechanisms function in practice or interact with complex regulatory and institutional environments (Croucher et al., 2020; Samout, 2021; Mokhtarzadeh et al., 2021). In the Tanzanian context, overlapping mandates, limited financial autonomy, and constrained stakeholder engagement are frequently cited challenges (Marijani & Manase, 2020; Lemnge, 2022; Muya & Tundui, 2020), but the specific contribution of advisory board accountability to institutional outcomes—such as enrollment, infrastructure, and stakeholder satisfaction—remains insufficiently theorised and empirically substantiated (Muya & Tundui, 2020; Lemnge, 2022).

Moreover, many studies adopt a singular theoretical lens—typically the good governance paradigm—without critically engaging with alternative governance theories. This tendency limits analytical depth and risks overlooking the nuanced ways in which context, power dynamics, and stakeholder interests shape governance outcomes (Jensen & Meckling, 1976; Davis et al., 1997; Freeman, 1984). Competing frameworks such as agency theory, stewardship theory, and stakeholder theory offer distinctive, sometimes conflicting explanations of board behaviour and institutional effectiveness. Agency theory, for example, foregrounds the role of boards in monitoring and controlling managerial self-interest (Jensen & Meckling, 1976), while stewardship theory emphasises trust, empowerment, and the intrinsic motivation of institutional leaders to act in the organisation's best interests (Davis et al., 1997). Stakeholder theory shifts the focus towards balancing the interests of multiple actors—students, staff, government, and society—arguing that legitimacy and performance hinge on responsiveness to diverse needs (Freeman, 1984). Each perspective brings unique strengths and

limitations, and its relative relevance is often shaped by local context, organisational culture, and regulatory environment (Croucher et al., 2020).

Within Tanzania, recent reforms have sought to strengthen governance in TEIs through the establishment of independent boards, harmonised regulatory frameworks, and a renewed emphasis on accountability and transparency (NACTE, 2016; TCU, 2019; NACTVET, 2024). The Tanzania Institute of Accountancy (TIA), a multi-campus institution with a diverse stakeholder base, provides a compelling case study for examining the real-world implications of these reforms. TIA was officially launched on 24 January 2003, succeeding the Dar es Salaam School of Accountancy (DSA), established in 1973 by the Ministry of Finance. Mandated to offer education in accountancy, procurement, logistics, and related fields, TIA operates under Tanzanian Government Notice No. 489 of November 2022. The institution is managed by a Board of Directors that serves as the advisory board under the Minister for Planning and Finance (URT, 2024).

While policy documents and annual reports highlight improvements in enrolment, infrastructure, and stakeholder engagement (URT, 2024; URT, 2025), the processes and mechanisms by which advisory board accountability influences these outcomes remain poorly understood. Notably, previous studies often attribute positive changes to board actions without adequately considering external drivers—such as funding policies, regulatory shifts, or market dynamics—or exploring potential contradictions and negative cases. Moreover, the research gap is compounded by a lack of contextually grounded qualitative evidence on how accountability mechanisms operate in practice and interact with broader institutional and regulatory environments.

This study aims to address these shortcomings through a qualitative case study of the TIA by posing two central research questions: (1) How does advisory board accountability influence the performance of technical education institutions in Tanzania? and (2) What governance practices and accountability mechanisms most effectively promote institutional growth, efficiency, and stakeholder satisfaction? In doing so, the study moves beyond the mere identification of governance challenges and instead situates its analysis within a comparative theoretical framework. It critically examines the merits of good governance theory in relation to agency, stewardship, and stakeholder theories, explicitly justifying its adoption for the Tanzanian TEI context while acknowledging the relevance and limitations of competing perspectives.

To operationalise these theoretical insights, the study proposes a conceptual model that situates advisory board accountability as a multi-dimensional

construct encompassing transparency, ethical leadership, stakeholder inclusion, resource oversight, and performance monitoring. The model posits direct and indirect pathways linking these accountability mechanisms to key performance outcomes—enrolment growth, infrastructure expansion, and stakeholder satisfaction—and acknowledges the mediating influence of contextual factors such as regulatory complexity and financial autonomy.

By integrating comparative theoretical analysis, empirical investigation, and conceptual modelling, this research makes several contributions: First, it delivers a sharply articulated, contextually specific account of the governance–performance nexus in Tanzanian TEIs, moving beyond descriptive accounts to offer critical analysis and explanation. Second, it advances the scholarly debate by explicitly comparing and justifying governance theories, clarifying why good governance theory provides the most robust framework in this setting while recognising the relevance of competing perspectives. Third, it introduces and applies a conceptual model that clarifies the pathways through which advisory board accountability shapes institutional performance, providing a practical tool for diagnosis and reform.

In general, this study seeks to advance understanding of the conditions under which advisory board accountability drives institutional improvement in technical education, while also highlighting the contextual and systemic factors that mediate these effects. The findings are expected to inform both policy and practice, offering lessons for Tanzania and comparable education systems across Africa and beyond.

The remainder of this manuscript is structured as follows: The next section presents a critical review of the literature, comparing competing governance theories and situating the study within broader debates on accountability and institutional performance. This is followed by the methodology section, which outlines the qualitative case study design, data collection procedures, and analytical framework. The findings section then details the empirical results, organised around key themes that link advisory board accountability to institutional outcomes at the Tanzania Institute of Accountancy. Subsequently, the discussion interprets these findings in relation to theoretical perspectives and contextual factors, highlighting both contributions and limitations. The paper concludes with targeted recommendations for policy and practice, as well as suggestions for future research, underscoring the broader implications for governance and performance in technical education institutions.

Theoretical Consideration

This study is principally grounded in the theory of good governance, a paradigm that has become central to public sector management and higher education reform, particularly in developing contexts (Petr, 2008; Singla & Singh, 2018). Good governance theory was initially advanced in response to governance crises in the public sector and was promoted by organisations such as the World Bank and the International Monetary Fund. It advocates a holistic approach to governance, emphasising principles of not only compliance but also accountability, transparency, participation, the rule of law, equity, and efficiency (Clark, 2006b; World Bank, 2021).

At its core, good governance theory focuses on the processes and mechanisms by which decisions are made, implemented, and monitored. In higher education settings, and especially within TEIs, these processes centre on the roles of institutional boards in policy formation, strategic oversight, resource allocation, and quality assurance (NACTE, 2016). According to the theory, when boards embody the values of ethical stewardship and transparent resource management and are responsive to a wide range of stakeholders—including students, staff, regulators, and the broader community—they are more likely to foster sustainable institutional improvements, such as increased enrollment, enhanced infrastructure, and stakeholder satisfaction (Kessy, 2020; Moreno-Albarracín et al., 2020; Belgaroui & Hamad, 2021; Lemnge, 2022).

However, it is important to situate good governance theory within the broader landscape of governance scholarship. Alternative theories offer different explanatory lenses for understanding board behaviour and effectiveness. Agency theory conceptualises the board as a mechanism for monitoring and controlling managerial behaviour to minimise self-interest and align it with stakeholder interests (Jensen & Meckling, 1976). While agency theory highlights the risks of opportunism and the need for oversight, it has been critiqued for its narrow focus on control rather than on collaboration or trust, which are also vital in educational settings.

By contrast, stewardship theory assumes that institutional leaders are intrinsically motivated to act in the best interests of the organisation, emphasising trust, empowerment, and shared objectives (Davis et al., 1997). While stewardship theory may reflect the aspirations of many educational institutions, critics argue that it may underestimate the potential for conflicts of interest or lack of accountability, especially in resource-constrained contexts.

Stakeholder theory further expands the scope by prioritising the engagement and balancing of multiple stakeholder interests—students, staff, government, industry, and society (Freeman, 1984). This perspective is particularly relevant in higher education, where legitimacy and performance increasingly depend on responsiveness to a diverse and sometimes conflicting set of demands. However, stakeholder theory can be challenged for its complexity and possible lack of clear priorities in decision-making.

Finally, institutional theory highlights the influence of external rules, norms, and cultural expectations, explaining how organisations often conform to institutionalised practices for legitimacy rather than for functional efficiency (DiMaggio & Powell, 1983). In the Tanzanian context, where regulatory frameworks and external donor expectations are prominent, these dynamics are especially salient.

While each of these theoretical perspectives contributes valuable insights, this study adopts good governance theory due to its comprehensive integration of accountability, transparency, and stakeholder participation, all of which are explicitly embedded in Tanzanian higher education reforms (NACTE, 2016; TCU, 2019; NACTVET, 2024). Nevertheless, the analysis acknowledges that the practical realisation of good governance ideals is shaped by contextual constraints—including overlapping regulatory mandates and limited institutional autonomy—well-documented in the literature (Petr, 2008; Marijani & Manase, 2020).

By adopting good governance theory as the primary analytical lens—while remaining attentive to insights from agency, stewardship, stakeholder, and institutional theories—this study is equipped to critically examine how board accountability is enacted, facilitated, or constrained within Tanzanian TEIs. This theoretically pluralistic approach enables a nuanced exploration of the mechanisms and contextual factors shaping board accountability and institutional performance, providing a robust foundation for analysing and interpreting empirical findings.

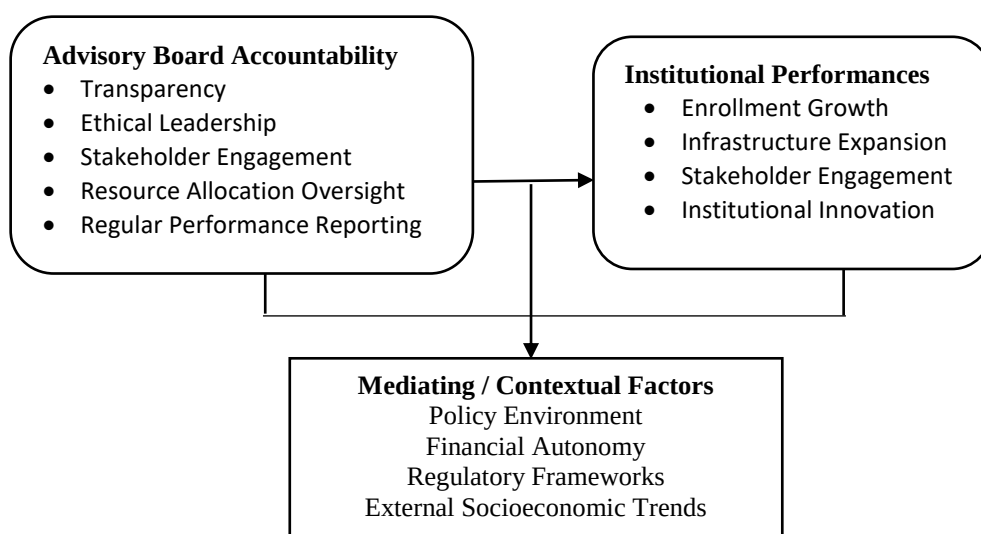
To operationalise these theoretical insights, the study proposes a conceptual model that links advisory board accountability—encompassing both compliance-oriented and developmental dimensions—to key performance outcomes within the institutional context.

This model posits that specific accountability mechanisms—such as transparent resource allocation, regular performance reporting, and inclusive stakeholder engagement—directly influence key institutional outcomes, including enrollment growth, infrastructure expansion, and stakeholder satisfaction. The model is both deductively informed by good governance

theory and inductively shaped by the main themes emerging from the interview data (see Figure 1). This framework guided the design of the interview guide and structured the analysis of findings.

Figure 1:

Conceptual Model Linking Advisory Board Accountability to Performance Outcomes



Source: Authors of this article, 2026.

The conceptual model in Figure 1, which links board accountability to performance outcomes, seeks to clarify how board-level governance practices influence an institution's overall effectiveness and success. At the core of the model are the Advisory Board Accountability Mechanisms, which include transparency, ethical leadership, stakeholder engagement, oversight of resource allocation, and regular performance reporting. These mechanisms represent the independent variables in the model and are considered essential for fostering responsible and responsive governance within an organisation.

Transparency ensures that the board's decision-making processes and actions are open and accessible to stakeholders, thereby building trust and credibility. Ethical leadership emphasises the importance of integrity and adherence to moral standards among board members, which helps set a positive tone for the entire institution. Stakeholder engagement involves actively involving relevant parties—such as staff, students, and the community—in governance processes to ensure their voices are heard and considered. Resource allocation oversight refers to the careful monitoring of how institutional resources are distributed and utilised, promoting efficiency and fairness.

Finally, regular performance reporting establishes a routine for assessing and communicating progress towards institutional goals, enabling timely interventions and continuous improvement.

The model posits that these board accountability mechanisms directly influence various institutional performances, which are the dependent variables. Performance outcomes include enrollment growth, infrastructure expansion, stakeholder satisfaction, and institutional innovation. For example, transparent and ethical governance can enhance stakeholder satisfaction by ensuring decisions are made in the community's best interests. At the same time, effective resource oversight and performance reporting can drive enrolment growth and foster innovation by enabling data-driven strategies and practices.

However, the relationship between board accountability and performance outcomes is not isolated. The model acknowledges the significance of mediating and contextual factors, such as the policy environment, financial autonomy, regulatory frameworks, and external socioeconomic trends. These factors can either enhance or constrain the effectiveness of board accountability mechanisms. For instance, a supportive policy environment and greater financial autonomy may empower boards to implement more effective accountability practices, thereby improving performance outcomes. Conversely, restrictive regulations or unfavourable socioeconomic conditions may limit the board's ability to translate accountability into tangible results. In summary, this conceptual model highlights the pivotal role of board accountability in driving institutional performance while also recognising the influence of broader contextual elements. By understanding these relationships, institutions can better design governance structures and practices that are responsive to both internal and external demands, ultimately leading to sustained growth and innovation.

Materials and Methods

This study employed a qualitative case study design to explore the role of board accountability in the performance of Technical Education Institutions (TEIs), with a particular focus on the Tanzania Institute of Accountancy (TIA). A qualitative approach was chosen for its appropriateness in investigating complex organisational phenomena, allowing for a rich, in-depth exploration of governance processes and stakeholder experiences (Creswell, 2018; Priya, 2021). The case study method enabled the researcher to address “how” and “why” questions, providing nuanced, contextually grounded insights into the dynamics of board accountability in a real-world institutional setting.

TIA was purposively selected as a representative case due to its strategic significance within Tanzania's higher education sector, its direct oversight by the Ministry of Finance, and its diverse array of stakeholders—including students, staff, government officials, and regulators. This diversity positioned TIA as an informative and illustrative context for examining the enactment and impact of board accountability.

A purposive sampling strategy was employed to identify and recruit participants directly engaged with or overseeing governance at TIA. The sample comprised seventeen (17) key informants: six TIA Advisory Board members, four senior management officials (including the Rector and Deputy Rectors), three officials from the Ministry of Finance, one from the Ministry of Education, one from the NACTVET, and two TIA student representatives. Selection was guided by the principle of information-rich cases, ensuring the inclusion of individuals with varying perspectives and substantive experience relevant to board accountability.

Sampling adequacy was determined by the goal of thematic saturation, a widely accepted criterion in qualitative research (Guest et al., 2006; Creswell, 2018). Interviews were conducted until no new substantive themes emerged—by the twelfth interview, recurring patterns were observed, and subsequent interviews largely confirmed rather than extended the findings, indicating that data saturation had been achieved. This approach ensured comprehensive coverage of the phenomenon under investigation while maintaining a manageable and analytically rigorous sample size.

Data were collected through semi-structured, in-depth interviews and systematic documentary review, ensuring triangulation and enhancing the credibility of findings. The interview protocol was designed to probe participants' experiences with board accountability, governance practices, and perceived institutional outcomes while allowing sufficient flexibility to follow emergent topics. Interviews took place between June and July 2025. In addition to interviews, relevant institutional documents were reviewed, including TIA annual reports, board meeting minutes, policy documents from NACTVET and the Ministry of Finance, and institutional statistical records. These materials were used to contextualise interview data, corroborate participant accounts, and enrich the overall analysis.

To ensure analytical rigour and the credibility of this qualitative study, the analysis followed Braun and Clarke's (2006) six-phase framework for thematic analysis. The process began with repeated, immersive readings of all interview transcripts and documentary materials to achieve deep familiarity with the data. Initial codes were developed inductively, allowing

patterns and concepts to emerge organically from participants' accounts and documentary evidence rather than being imposed a priori.

Hand-coding was conducted using printed transcripts and detailed coding sheets. During this phase, segments of text were highlighted, annotated, and labelled with descriptive codes in the margins. These codes captured both explicit statements and underlying meanings or patterns relevant to the research questions. As coding progressed, related codes were grouped together, and a master codebook was constructed and continually refined to reflect the evolving understanding of the data.

To enhance coding reliability and limit subjectivity, approximately 25% of the transcripts were independently coded by a second researcher experienced in qualitative methods. Both researchers then met to compare their coding, discuss discrepancies, and reach consensus on code definitions and the inclusion or exclusion of specific data segments. Any inconsistencies were resolved through open dialogue and reference to the research objectives. This process led to the development of a shared, clearly defined final codebook.

Analytical rigour was further supported through regular peer debriefing with colleagues who were not directly involved in data collection. These sessions provided opportunities to present emerging themes, question underlying assumptions, and refine the interpretive framework. Negative or deviant cases—instances that challenged dominant patterns—were deliberately sought out to ensure that the analysis reflected the complexity and diversity of participant perspectives rather than simply confirming initial assumptions.

Throughout the analysis, an audit trail was maintained, including detailed notes on coding decisions, theme development, and reflections on the analytic process. This approach ensured transparency and allowed for a clear reconstruction of how raw data were transformed into final themes. Collectively, these strategies underpin the trustworthiness, credibility, and depth of the study's findings.

The researcher's background in Tanzanian higher education governance informed both access to the field and sensitivity to context, while also presenting potential biases. To address this, reflexivity was practiced throughout the study. A reflexive journal was maintained to record assumptions, decisions, and emerging insights. Regular discussions with peers and the use of member checking with participants helped ensure that interpretations remained grounded in the data and were not unduly influenced by preconceptions.

Regarding ethical considerations, all participants provided informed consent prior to interviews. Confidentiality and anonymity were maintained in both data handling and reporting. Institutional access and data management procedures complied with relevant ethical guidelines for social research.

By integrating purposive sampling, triangulation of data sources, rigorous thematic analysis, and reflexive researcher practices, this study provides a comprehensive and credible account of how board accountability is enacted and experienced within TIA. These methodological strategies underpin the study's contribution to the broader understanding of governance and performance in Tanzanian TEIs.

The Concept of Governance in Higher Education

Governance in higher education refers to the mechanisms, structures, and relationships by which institutions are directed, controlled, and held accountable to their stakeholders (Farnham, 2023; Sentius, 2022). Effective governance is characterised not just by clear roles and responsibilities or formal structures but also by ongoing negotiation among institutional leaders, boards, faculty, students, and external actors (Croucher et al., 2020). These dynamics shape how decisions are made, how power is distributed, and how institutional goals align with both regulatory requirements and societal expectations.

Internationally, governance models range from highly centralised systems dominated by government control to more decentralised, collegial, or shared governance frameworks. In each case, robust governance frameworks are widely recognised as essential for promoting accountability, institutional autonomy, and quality assurance, all of which contribute to positive educational outcomes (World Bank, 2021). However, the effectiveness of any governance model depends on its fit with local institutional missions, policy environments, and stakeholder cultures.

Governance challenges in sub-Saharan Africa, including Tanzania, often stem from resource constraints, bureaucratic inefficiencies, and fragmented regulatory environments (Asongu & Odhiambo, 2020). These issues can undermine innovation and responsiveness. In response, many governments have pursued reforms emphasising transparency, stakeholder participation, and accountability (NACTE, 2016; TCU, 2019), though evidence suggests that the practical impact of these reforms is often mixed and highly context-dependent.

Recent scholarship moves beyond a technical view of governance to one that recognises its dynamic and relational nature. The effectiveness of governance

increasingly depends on the practical enactment and adaptation of formal mechanisms to evolving contexts (Croucher et al., 2020). This perspective emphasizes the necessity to examine not only structural features but also cultural, political, and relational factors that shape institutional legitimacy and sustainability.

Advisory Board Accountability as a Pillar of Good Governance

Advisory board accountability is widely regarded as foundational to good governance in higher education (Clark, 2006; Singla & Singh, 2018; Samout, 2021), but its operationalisation and impact are complex. It encompasses not just statutory compliance but also ethical stewardship, transparent decision-making, and responsiveness to diverse stakeholders (Kessy, 2020; Fonseca et al., 2020a). Scholars emphasise that high standards of board accountability foster institutional trust, legitimacy, and long-term effectiveness (Singla & Singh, 2018; Moreno-Albarracín et al., 2020).

However, broader cultural and organisational contexts (Petr, 2008), including variations in governance structures, stakeholder expectations, and resource availability, shape the enactment of accountability. Some authors have argued that accountability mechanisms function both as control systems—ensuring compliance and risk management—and as learning processes that drive continuous improvement and innovation (Elee, 2021). Despite these potential benefits, accountability practices can falter if they are overly bureaucratic, insufficiently resourced, or misaligned with local realities.

Governance and Performance in Technical Education Institutions

The relationship between governance and institutional performance has been widely explored, though findings are not always consistent. Empirical studies generally support a positive association between accountable governance and outcomes such as enrollment growth, stakeholder satisfaction, and institutional resilience (Moloi & Adelowotan, 2019; Belgaroui & Hamad, 2021; Bianchi & Caperchione, 2022). For example, Belgaroui and Hamad (2021) demonstrate that academic autonomy and board accountability can enhance university performance in Tunisia, while Ismara et al. (2020) find that active and accountable boards improve the alignment between graduate competencies and labour market needs in Indonesia.

However, the governance-performance link is contextually contingent. Mokhtarzadeh et al. (2021) show that the strength and nature of this relationship depend on organisational culture, regulatory environment, and resource availability—factors that may either reinforce or undermine the benefits of accountability. In some African contexts, high levels of corruption or regulatory complexity can negate the advantages of transparent

governance (Asongu & Odhiambo, 2020). These findings caution against assuming that formal accountability mechanisms alone are sufficient to drive improvement.

Governance and Accountability in Tanzania

In Tanzania, recent reforms have established harmonised standards and regulatory frameworks for both universities and TEIs, mandating independent boards with defined roles in policymaking, oversight, and quality assurance (NACTE, 2016; TCU, 2019; NACTVET, 2024). While these changes signal progress, empirical research on their practical effects remains limited. Lemnge (2022) finds that accountability and transparency can improve effectiveness in technical colleges but does not isolate board accountability as a distinct factor. Muya and Tundui (2020) emphasise that effective board governance is essential for expanding access and ensuring quality. However, persistent challenges, such as overlapping regulatory mandates and limited financial autonomy, continue to constrain many TEIs.

Notably, policy directives sometimes require public TEIs to operate more like commercial entities, which can create tensions with traditional educational missions and values. These contextual complexities underscore the need to examine how accountability is enacted and negotiated in practice, not just in policy.

Methodological Trends and Gaps

Much of the existing research has relied on quantitative approaches, such as large-scale surveys and statistical analyses (Croucher et al., 2020; Samout, 2021; Lemnge, 2022), which, while valuable, may overlook the nuanced, processual, and context-specific dynamics that qualitative research can reveal (Creswell, 2018; Priya, 2021). There is a clear need for in-depth, qualitative investigations that explore how board accountability is experienced and enacted within specific TEIs and how it concretely shapes institutional performance in the Tanzanian context.

While the literature affirms the importance of governance and accountability for high performance in higher education, a gap remains regarding the direct influence of board accountability on Tanzanian TEIs. Existing studies often fail to adequately account for mediating factors, local institutional contexts, or the lived experiences of board members and stakeholders. This study addresses these gaps by providing a qualitative, case-based exploration of board accountability at the Tanzania Institute of Accountancy, thereby contributing to a more nuanced understanding of good governance in African higher education.

Results

The qualitative analysis of interview data and documentary reviews revealed several important themes regarding the role of board accountability in enhancing the performance of the Tanzania Institute of Accountancy (TIA). These results are organised thematically: (1) the nature and effectiveness of board accountability mechanisms, (2) impacts on institutional performance, (3) stakeholder engagement, and (4) mediating contextual challenges. Each theme is illustrated with direct participant quotes and documentary evidence, providing a robust, triangulated account.

Nature and effectiveness of Advisory Board Accountability Mechanisms

The study found that board accountability at TIA is multifaceted, encompassing legal compliance, ethical standards, and proactive oversight. Interviewees described a strong culture of transparency and documented decision-making. As one board member explained, “Our commitment to transparency is demonstrated through annual asset declarations and open reporting of all board proceedings. This has built trust across the institution.” A NACTVET official reinforced this perception, stating, “Accountability of TIA’s Board is effective in terms of law compliance, annual report publication, and professional practices. The difference is visible compared to some other institutions.” Documentary review supported these claims. Recent board meeting minutes showed systematic agenda-setting, rigorous documentation of decisions, and evidence of collective decision-making. The TIA 2024 Annual Report confirmed that all board members submitted asset declarations and attended annual ethics training sessions (URT, 2024), further institutionalising accountability. Such practices resonate with the broader literature, which underscores the importance of procedural transparency and collective decision-making in effective governance (Croucher et al., 2020; Sentius, 2022).

Additionally, ongoing professional development was highlighted as a cornerstone of board effectiveness. A senior TIA official noted, “Ongoing governance training has equipped us to understand regulatory changes and our accountability roles better. It keeps board members sharp and responsive.”³ This finding supports Sentius (2022), who argues that ongoing professional development for board members enhances institutional governance.

Impact of Advisory Board Accountability on Institutional Performance

The analysis of interview data and institutional documents revealed a strong perception among TIA stakeholders that enhanced board accountability

³ Interview with TIA Senior official, 24 June 2025, Dar es salaam (personal communication).

contributed to significant enrolment growth between 2020/21 and 2024/25 (URT, 2025). One academic leader stated, “Our enrollment figures have never been higher, and I attribute this directly to the board’s insistence on launching market-driven programs and strengthening our outreach.” According to the TIA Annual Report (2024/25), total student enrolment increased from 21,833 to 31,106 during this period. However, several participants pointed to concurrent external factors. As a Ministry of Finance official noted, “The government’s expansion of student loans and scholarships has played a big part in enrollment growth across all TEIs, not just TIA.” Similarly, a documentary review of national education policy circulars from 2021 to 2024 showed a marked increase in public funding for technical education, coinciding with the period of observed growth at TIA (URT, 2023a).

On infrastructure and campus expansion

Documentary evidence and interviews both confirmed remarkable progress in physical development. The board’s oversight was visible in the prioritisation and execution of new facilities. A senior administrator stated, “The board was instrumental in securing funding for the new science labs. They did not just approve the budget; they followed up on every stage of construction.” Procurement and construction records from 2022–2024 documented a transparent approval process, including board site visits and detailed expenditure tracking (URT, 2025). A Ministry of Finance official described the opening of new campuses in Tanga and Zanzibar as “a testament to the board’s proactive approach in securing approvals and mobilising resources. Without their leadership, expansion would have stalled.” This outcome aligns with the argument by Moloi and Adelowotan (2019) that effective board governance leads to better resource allocation and physical development in technical education institutions. This is similar to Muktiyanto et al.’s (2020) assertion that effective boards drive not only compliance but also innovation and institutional expansion. Documentary analysis confirmed board authorisations and oversight for these projects (URT, 2024; URT, 2025). However, not all feedback was uniformly positive. A member of the academic staff cautioned, “We have new labs, yes, but maintenance budgets have not kept pace, and some equipment is already underused.”

Enhanced Stakeholder Engagement

Board accountability was seen to foster stakeholder satisfaction and collaboration both internally and externally. Staff reported improvements in welfare, promotions, and professional development. TIA’s workforce grew from 277 in 2020/21 to 400 in 2023/24, with a corresponding rise in the number of staff holding PhDs (URT, 2024; URT, 2025). A senior administrator remarked, “There have been more opportunities for promotions

and professional development since the board started prioritising staff welfare.” These achievements support the findings of Croucher et al. (2020) and Lemnge (2022), who emphasise the importance of accountable governance for stakeholder satisfaction. Students also reported feeling more engaged in decision-making. As one student representative said, “We feel heard and valued in institutional decisions.” Documentary analysis indicated the board’s endorsement of a client service charter, with annual feedback mechanisms for students and staff.

Additionally, the signing of 23 MoUs with industry and academic partners, confirmed in the 2023 Board Report, expanded opportunities for internships and collaborative research, as noted by an external partner: “The board’s openness to partnership has made TIA a leader in linking students with real-world experience.”⁴ According to good governance theory, such responsiveness is crucial for maintaining legitimacy and support from both internal and external constituencies (Clark, 2006; Samout, 2021).

Mediating Factors and Contextual Challenges

Despite these successes, several mediating challenges were identified. Overlapping regulatory mandates and limited financial autonomy emerged as persistent barriers. **Regulatory Complexity:** Several board members reported that overlapping mandates from regulatory bodies sometimes created confusion and delays. As one board member explained, “Sometimes, we get conflicting instructions from NACTVET, TCU, and the treasurer registrar under the Tanzania Ministry of Finance, making compliance burdensome and slowing down our processes.” As one board member explained, “The ‘one-size-fits-all’ regulatory approach does not always accommodate the unique context or needs of TIA.” Another added, “Sometimes, guidelines from NACTVET and TCU conflict, making compliance burdensome and slowing down our processes.” Documentary evidence from 2024 correspondence between TIA and external agencies corroborated these experiences, detailing delays in programme approval due to regulatory ambiguity. This aligns with critical perspectives on good governance theory (Petr, 2008; Marijani & Manase, 2020), which caution that imported governance frameworks must be adapted to local realities to avoid unintended consequences.

Limited Financial Autonomy: The inability to set tuition fees or quickly allocate resources was a recurring theme. A senior administrator explained, “*Our inability to set our own fee structure limits our capacity to respond to new opportunities or invest in critical areas.*” He added that “*board meeting minutes and budget documents showed frequent delays in securing approval*”

⁴ Interview with TIA senior administration official – Administration bloc, 25 June 2025, Dar es Salaam (personal communication).

for major expenditures, highlighting the constraints imposed by external oversight.” The study’s findings suggest that while board accountability is necessary for institutional performance, it is not sufficient; broader systemic reforms—in funding, regulation, and policy autonomy—are required to fully realise the benefits of good governance.

Sustainability Concerns: While infrastructure expansion was widely praised, some staff raised sustainability concerns. One academic staff member cautioned, “*We have new labs, yes, but maintenance budgets have not kept pace, and some equipment is already underused.*”⁵ This finding was confirmed by internal maintenance reports showing delayed repairs and resource constraints (URT, 2023b). This echoes the findings of Asongu and Odhiambo (2020), who note that governance reforms must be accompanied by enabling environments to achieve sustainable improvements.

Board Accountability as Control and Learning

The evidence supports the dual role of board accountability as both a control mechanism—ensuring compliance with legal, regulatory, and ethical standards—and a learning process that fosters adaptability and ongoing improvement in response to performance data and stakeholder feedback. Overall, the results provide robust, triangulated evidence that board accountability has been a significant driver of institutional performance at TIA. However, its effectiveness is mediated by broader systemic and contextual factors, highlighting the need for regulatory harmonisation and increased institutional autonomy to realise the benefits of accountable board governance fully. The findings support theoretical arguments that board accountability serves both control and learning functions (Elee, 2021).

Discussion

The findings of this study reinforce the pivotal role of advisory board accountability in enhancing the performance of Technical Education Institutions (TEIs) in Tanzania, with the Tanzania Institute of Accountancy (TIA) serving as a compelling case in point. Consistent with good governance theory (Clark, 2006; World Bank, 2021), the analysis demonstrates that the TIA board’s emphasis on transparency, ethical leadership, and procedural rigour has contributed to notable improvements in enrolment, infrastructure, and stakeholder engagement.

Interpretation of Key Themes

The study reveals that board accountability at TIA is not limited to regulatory compliance but encompasses a broader commitment to ethical stewardship

⁵ Interview with TIA Senior academic official, 26 June 2025, Dar es Salaam (personal communication).

and continuous improvement. The board's systematic approach—evidenced by regular documentation, open meetings, and ongoing professional development—has fostered a culture of transparency and trust, echoing literature on the transformative potential of robust governance (Kessy, 2020; Fonseca et al., 2020b; Sentius, 2022). These practices have institutionalised accountability at multiple levels, suggesting that the board's influence extends deeply into everyday operations and strategic decision-making.

Advisory board accountability was closely linked to tangible performance outcomes. The substantial increase in student enrollment and workforce size, as well as the opening of new campuses in Tanga and Zanzibar, were cited by participants and corroborated by documentary evidence. These outcomes support assertions by Ismara et al. (2020) and Belgaroui & Hamad (2021) that accountable, proactive boards can positively shape institutional trajectories by aligning programmes with market needs and mobilising resources for growth.

Furthermore, the board's prioritisation of staff welfare and stakeholder engagement was found to enhance satisfaction and motivation within the institution. The integration of stakeholder interests into strategic planning, through mechanisms such as MoUs and client service charters, aligns with stakeholder theory and reinforces findings by Croucher et al. (2020) and Lemnge (2022) regarding the importance of inclusive governance.

Contradictions and Alternative Explanations

While the overall narrative from respondents was positive, the study also surfaced important contradictions and variations. These mixed perspectives highlight both the achievements and the limitations of board-led infrastructure expansion. Although many attributed enrollment growths to board initiatives, several interviewees and documentary sources pointed out that national policy changes—such as the expansion of government scholarships and student loans—likely played a significant role. This highlights a key limitation: institutional performance cannot be attributed solely to internal governance reforms but must be contextualised within broader policy and funding environments (Moloi & Adelowotan, 2019; Mokhtarzadeh et al., 2021). The coexistence of internal and external drivers complicates efforts to draw direct causal links between board actions and outcomes, suggesting the need for more nuanced, multi-level analyses in future research.

Similarly, while infrastructure development was widely praised, some staff members expressed concerns about the sustainability of recent investments. Maintenance budgets and resource utilisation were identified as potential

weak points, with reports of underused equipment and strain on operational budgets. These concerns echo arguments in the literature (Moloi & Adelowotan, 2019) that rapid physical expansion must be matched by ongoing support and planning to ensure long-term benefit. This tension suggests that board accountability should extend beyond project approval to include long-term planning and monitoring to ensure that new investments yield ongoing benefits.

Contextual and Systemic Constraints

The study also underscores the significant constraints posed by overlapping regulatory mandates and limited institutional autonomy. Respondents described situations in which conflicting directives from NACTVET, TCU, and the Treasury Registrar led to administrative inefficiencies and delayed decision-making. The challenges posed by regulatory complexity mirror concerns raised in governance scholarship about the risks of fragmented oversight (Petr, 2008; Marijani & Manase, 2020). While strong board accountability is essential for compliance, the effectiveness of governance structures is undermined when institutions are subject to conflicting directives. This finding underscores the importance of policy harmonisation and clearer lines of authority to maximise the impact of board-level reforms. The lack of harmonisation can erode the effectiveness of even the most accountable boards, as decision-makers are forced to navigate competing and sometimes contradictory expectations.

Limited financial autonomy emerged as another notable challenge, with board members and administrators expressing frustration at the inability to set tuition fees independently or allocate resources quickly. These limitations constrain the institution's capacity to respond to new opportunities or invest in critical areas, reinforcing Asongu & Odhiambo's (2020) argument that governance reforms must be matched by enabling environments and policy support.

The tension between commercial imperatives and educational missions further complicates the governance landscape. Some board members noted the challenge of balancing financial sustainability with core educational values, a theme echoed in the governance literature (Mokhtarzadeh et al., 2021). Navigating these competing pressures requires careful negotiation and adaptive leadership.

Implications for Theory and Practice

The findings of this study contribute to the broader literature by illustrating both the potential and the limitations of board accountability as a lever for institutional improvement. While the results affirm the central tenets of good

governance theory, they also highlight the importance of contextual adaptation and systemic reform. The experience of TIA suggests that even well-designed accountability mechanisms may fail to achieve their full potential in the absence of regulatory clarity, financial flexibility, and a supportive policy environment.

Practically, the study points to the need for more targeted training and development for board members, harmonisation of regulatory frameworks, and incremental reforms to increase institutional autonomy. These steps are vital for ensuring that accountability translates into sustained, meaningful improvements in institutional performance.

Avenues for Future Research

Finally, the study highlights the value of qualitative, case-based approaches for unpacking the complexities of governance in African higher education. Future research should consider comparative studies across multiple institutions and regions, integrating both qualitative and quantitative data, to further elucidate the pathways through which board accountability and contextual factors interact to shape institutional outcomes. In conclusion, this study indicates that board accountability is a crucial, albeit insufficient, factor for achieving institutional excellence and resilience in Tanzanian TEIs. Its effectiveness is ultimately shaped by the broader regulatory, financial, and policy context—underscoring the need for holistic, system-wide reforms alongside ongoing strengthening of board governance practices.

Recommendations

Based on the findings of this study, several recommendations are proposed to enhance board accountability and overall institutional performance in TEIs in Tanzania. Firstly, it is imperative that regulatory authorities, including NACTVET and the Ministry of Finance, undertake a comprehensive review and harmonisation of overlapping policies and mandates. Streamlining regulatory processes will reduce administrative burdens and allow TEIs greater flexibility in decision-making. Secondly, institutions should implement regular, context-specific governance training programmes for board members. These programmes should focus not only on compliance but also on strategic leadership, ethical decision-making, and stakeholder engagement.

Thirdly, Incremental Enhancement of Financial Autonomy: Policymakers should consider phased reforms to grant TEIs increased financial autonomy. This could include allowing institutions to set certain fee structures, mobilise resources for infrastructure, and allocate budgets in line with strategic priorities—coupled with robust accountability measures. Fourthly,

Institutionalise Stakeholder Engagement: Establish ongoing processes to consult students, staff, industry representatives, and community partners via advisory boards, feedback systems, and structured alliances. This approach ensures that governance decisions consider varied perspectives and promotes a sense of collective responsibility.

Fifthly, Evidence-Based Monitoring and Reporting: Boards should adopt systematic, transparent reporting practices that incorporate both quantitative performance indicators and qualitative feedback. Regular public dissemination of board activities and institutional outcomes will enhance transparency and build trust with stakeholders. Finally, scholars are encouraged to conduct comparative studies across different TEIs and regions, using mixed methods and broader stakeholder samples. This will help further illuminate the pathways linking advisory board accountability, contextual factors, and institutional performance in diverse settings.

Conclusion

This study provides a notable understanding of how advisory board accountability shapes the performance of Technical Education Institutions (TEIs) in Tanzania, with focused evidence from the Tanzania Institute of Accountancy (TIA). By integrating good governance theory with comparative insights from agency, stewardship, and stakeholder perspectives, the research demonstrates that board accountability is not merely a procedural requirement but a strategic driver of institutional success. Effective accountability mechanisms—such as transparent resource allocation, ethical leadership, and inclusive stakeholder engagement—were found to enhance key outcomes, including enrollment growth, infrastructure development, and stakeholder satisfaction.

However, the study also reveals that the impact of board accountability is significantly mediated by contextual factors, including overlapping regulatory mandates, limited financial autonomy, and shifting policy directives. These constraints can limit the board's capacity to respond proactively to emerging needs and opportunities. The findings therefore highlight the importance of adapting governance frameworks to the local context, ensuring that accountability is supported by regulatory clarity, adequate autonomy, and sufficient resources.

By triangulating interview data with documentary analysis and situating the analysis within a broader theoretical landscape, this research extends the application of good governance theory in African higher education and underscores the necessity of context-sensitive reform. The study concludes that strengthening advisory board accountability, in tandem with systemic

policy changes, is essential for achieving sustainable improvements in TEI performance and advancing national development goals.

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The Politics of Eligibility, Policy Design, Priority Clustering and ODL Financing in Tanzania's Student Loan Scheme

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Abstract

Tanzania's Higher Education Students' Loans Board (HESLB) combines support for eligible and needy students with programme priorities and conditions governing access to public finance. This paper examines how these design features accommodate open and distance learning (ODL), with particular attention to the Open University of Tanzania (OUT). A qualitative documentary analysis compares selected statutory and annual guideline provisions with Tanzanian scholarship and a South African policy comparator. The evidence requires a distinction between formal recognition, eligibility for individual benefits and effective access. Historical guidelines explicitly recognised OUT, contradicting a blanket claim of policy exclusion. Nevertheless, eligibility filters, programme ranking and the specification of study costs raise questions about the fit between financing rules and flexible learning pathways. The documents establish policy conditions, but do not establish ODL application success rates, the scale of unmet need or discriminatory intent. Using policy design and social justice perspectives, the paper interprets these conditions as potential sources of differential access that require administrative investigation. It recommends clearer guidance on ODL benefit coverage, analysis of applications and awards by mode of study, and a costed pilot to assess support for eligible distance learners. The contribution is an evidence-bounded account of how formal inclusion may coexist with financing arrangements that require closer examination for equity

Keywords: Student loans, open and distance learning, policy design, equity, priority clustering

Introduction

Access to higher education depends partly on whether students can meet the costs of participation. Cost-sharing reforms redistribute responsibility among governments, households and graduates, while student loans seek to reduce immediate payment barriers (Johnstone, 2004). In Tanzania, HESLB was established under Act No. 9 of 2004 and began operating in 2005 (Higher Education Students' Loans Board [HESLB], 2021). Its financing arrangements bring together need, eligibility, national development priorities

and the sustainability of a publicly supported loan scheme. These objectives can complement one another, but their interaction also creates difficult distributive choices.

Recent Tanzanian research shows why the equity question remains relevant. Mgaiwa and Ishengoma (2023) identify both expanded access and continuing inequalities associated with the financing scheme. Msigwa (2016) examines the relationship between the scheme's social justice objectives and its design. Taken together, these studies suggest that increased aggregate participation does not settle whether support reaches all categories of students who need it. The question is especially pertinent where higher education systems offer flexible modes alongside campus-based study.

ODL can reduce the need to relocate or suspend employment, but flexibility does not eliminate tuition, learning materials or other participation costs. Mgogo's (2021) study of undergraduate science teacher education at OUT identifies insufficient resources and difficulties participating in learning activities. This evidence supports an affordability concern in a specific student group; it does not establish that all OUT students are denied HESLB loans. The distinction matters because barriers to paying for study may arise from several sources, including household resources, eligibility conditions, benefit coverage and implementation.

Statement of the Problem

The policy problem is whether student financing arrangements sufficiently accommodate diverse learning pathways. A statutory possibility of receiving assistance is different from an award, and an award is different from support adequate to sustain participation. OUT is a useful institutional focus for examining this distinction, but neither all OUT students nor all ODL students should be treated as a homogeneous category. Working status, age, prior qualifications, programme and household need may intersect with mode of study in different ways.

This paper asks three questions: How do selected HESLB rules recognise OUT and differentiate eligibility and benefits? How do programme priorities and other conditions potentially interact with flexible study? What can documentary evidence establish about inclusion, and what remains dependent on administrative or participant evidence? The analysis retains the politics of eligibility as its organising concern while treating exclusion as a proposition requiring evidence rather than a predetermined finding. It contributes a distinction between documented policy conditions and hypotheses about their implementation effects.

The literature review establishes the analytical framework, followed by the documentary methods and policy findings. The discussion evaluates the equity implications and competing explanations. Recommendations then identify feasible institutional actions and the evidence required to assess their effects.

Literature Review

Student Loans, Cost Sharing and Social Justice

The expansion of higher education has sparked debate about who should pay and how scarce public resources should be distributed. Johnstone (2004) explains cost-sharing as a shift towards greater household and student contributions. In a market-oriented financing model, students are partly treated as investors in future earnings. Loans can make this model more accessible by deferring payment, but debt and targeting rules also determine receive support. The tension is therefore between financing wider participation and distributing assistance fairly within a constrained budget.

A social justice approach broadens assessment beyond the number of beneficiaries. Fraser (2005) distinguishes questions of redistribution, recognition and representation. Applied here, redistribution concerns the resources available for participation; recognition concerns whether varied study arrangements are adequately acknowledged; and representation concerns whose needs inform financing decisions. These are analytical questions, rather than evidence that a particular agency deliberately disregards a group. They help explain why formally identical rules may require examination when learners have different resources and study costs.

Msigwa (2016) links the Tanzanian loan scheme to social justice, highlighting a mismatch between stated purposes and design. Mgaiwa and Ishengoma (2023) subsequently show that widened access can coexist with inequality. These studies support scrutiny of allocation arrangements, but their findings should not automatically to every institution or mode of study. In particular, national evidence on socioeconomic disparities does not, by itself, demonstrate an ODL-specific rejection mechanism. The present analysis examines the rules that could generate such a mechanism and identifies the evidence needed to test it.

Policy Design and the Social Construction of Target Populations

Policy design theory emphasises that public policies are not neutral technical instruments but reflect political choices about which groups receive benefits and bear burdens (Schneider & Ingram, 1993, 1997). Eligibility rules and benefit definitions can express assumptions about beneficiaries even where those assumptions are not stated directly. This framework for examining

student loans because policy categories connect administrative decisions to public priorities.

Schneider and Ingram's framework distinguishes populations by their political power and social construction. Its value here is as a sensitising perspective: it directs attention to recognised categories, conditions and costs. It does not permit the analyst to infer that ODL learners are constructed as undeserving simply because a document omits an ODL-specific explanation. Demonstrating a negative social construction would require stronger evidence, such as policy deliberations, explicit language, consistent decision patterns or stakeholder accounts. The analysis therefore distinguishes an observed design feature from a theoretical interpretation of its possible consequences.

This distinction also keeps programme prioritisation analytically separate from mode of study. A programme may be assigned a priority regardless of whether it is offered through ODL or campus attendance. Whether priority disproportionately affects ODL depends on the distribution of applicants across programmes and their allocation outcomes. Listing the programmes offered at OUT alone cannot establish this. Listing the programmes offered at OUT alone cannot establish this.

ODL Affordability and Digital Inclusion

ODL is intended to provide flexible pathways, but participation costs vary with learning arrangements. Students may need connectivity, devices, study materials and travel for required activities. These are assuming for every student. UNESCO's (2023) report cautions that educational technology can extend access while also reproducing inequalities when participation conditions are unequal. A financing analysis should therefore examine the full cost of learning, rather than treat distance education as costless because it reduces residential requirements.

Mgogo (2021) provides directly relevant Tanzanian evidence on the affordability of undergraduate science teacher education at OUT. However, this programme-specific study cannot represent the financial circumstances of the entire university. Nor should employment responsibilities, and study costs. Equally, employment is a legitimate consideration when a loan scheme targets scarce resources. The equity question is whether the chosen indicator identifies ability to pay with sufficient accuracy.

African Comparison and the Research Contribution

African comparison is useful when it identifies alternative design choices rather than assumes that schemes have identical purposes. South Africa's

National Student Financial Aid Scheme (NSFAS, 2025) expressly includes distance learning and UNISA in its allowance schedule. This contradicts an undifferentiated claim that the scheme excludes distance students. The relevant lesson is . However, the presence of a category does not establish adequacy or smooth implementation.

Tanzania and South Africa differ in their financing instruments and institutional settings. Their rules should not be ranked without examining budgets, eligibility and costs. Nevertheless, the comparator establishes that mode-specific recognition is administratively possible. This paper examines how recognition, screening, and benefit design relate to flexible study, while separating documented rules from effects that remain to be measured.

Definitions and Evidentiary Boundaries

Formal exclusion means an explicit rule disqualifying a category from a scheme or a specified benefit. Partial disadvantage means a less favourable condition or restricted benefit; whose consequences depend on the applicant's circumstances. Administrative silence means the absence of relevant guidance in a defined document set; it is not proof that no guidance exists elsewhere. Invisibility means an inability to identify a population in the reporting material examined. Marginalisation describes a broader pattern of reduced access or influence and requires convergent evidence. These concepts are related but are not interchangeable.

Effective access means being able to apply, satisfy the relevant conditions, obtain a decision and receive support usable for study. The present analysis identifies possible points of friction along that pathway. It does not measure their frequency, infer that all ODL students are disadvantaged, or attribute a motive to HESLB. The term exclusion is used only where the relevant rule and its scope are specified.

Methods

Design Scope and Document Selection

This study uses qualitative documentary analysis to examine policy design rather than estimate the causal effect of loan rules on participation. Following Bowen (2009), documents are treated as situated sources whose purposes and evidentiary limits matter. The analysis was updated during revision through a targeted review of official HESLB publications and source verification. The statutory context begins with the 2004 enactment; the primary comparison uses selected guideline years through 2025/2026. It is a purposive comparison of policy snapshots, not a complete annual reconstruction from 2004 to the present.

The primary corpus comprises six documents: the HESLB Act, Cap. 178, in its 2008 consolidated edition, and guidelines for 2009/2010, 2020/2021, 2021/2022, 2024/2025 and 2025/2026. These documents were selected because they provide the legal basis, an early operational example, the historical endpoint of the original analysis, a subsequent comparison, and recent operational provisions. Table 1 records their analytical uses and locators. The consolidated Act incorporates amendments only through October 2007; it is not treated as a complete statement of all later legal amendments.

Documents were included when issued by HESLB and when they contained provisions relevant to eligibility, prioritisation or financed items in the selected years. The primary corpus excluded duplicate copies, unrelated scholarship or diploma guidance, inaccessible texts, and unofficial summaries. The comparison is confined to the provisions in the identified documents. No claim is made that every guideline, regulation, operational manual or annual report was available. A continuous annual-report series is not part of the evidentiary basis, and the analysis does not establish a universal absence of mode-specific reporting.

selected. We selected secondary evidence for relevance and traceability. Msigwa (2016) and Mgaiwa and Ishengoma (2023) contextualise financing equity in Tanzania; the repository record and abstract of Mgogo (2021) provide bounded evidence on OUT affordability. UNESCO (2023) supports the digital inclusion discussion. The NSFAS (2025) allowance statement is a purposive comparator, not a representative sample of African schemes. Abstract-level evidence is used only for claims supported at that level.

Table 1

Document	Period or version	Locator	Analytical use
Act Cap. 178	2008 consolidated edition	Sections 16–17	Statutory basis; version limited to amendments through 2007
HESLB guidelines	2009/2010	Sections 3.9 and 4.3.2	Early OUT recognition and item-specific duration
HESLB guidelines	2020/2021	Sections 3.2 and 4	Recognition and programme priorities
HESLB guidelines	2021/2022	Sections 3.1–3.3 and 4	Screening and subsequent comparison
HESLB guidelines	2024/2025	Sections 3.1 and 7	Recent applicant conditions and financed items
HESLB guidelines	2025/2026	Sections 5–7	Recent priority and benefit design

Extraction Coding and Interpretation

We conducted the analysis manually using a document-by-category matrix. The unit of analysis was a provision or clearly identifiable passage. For each relevant passage, the matrix recorded the issuer, year, section or page, beneficiary category, eligibility condition, supported item and evidentiary status. Initial categories were deductive: legal eligibility, OUT or mode recognition, age and prior qualifications, employment or other funding, programme priority, benefit coverage and application or payment arrangements. Table 2 specifies the questions used to organise extraction.

The analytical process involved reading relevant provisions, assigning them to these categories and comparing their scope across the selected years. A statement about a benefit was not coded as an exclusion from the entire scheme. Similarly, priority was not coded as an unconditional guarantee. Where the same provision concerned several categories, it was considered in each relevant comparison. The analysis specifically examined contradictory evidence, including clauses recognising OUT, to avoid retaining an interpretation supported only by omissions.

Themes were developed by grouping comparisons into three relationships: recognition versus effective access, screening conditions versus diverse learner circumstances, and program or benefit differentiation versus equity. These are analytical themes, not frequencies derived from a large coded corpus. No software-based coding, independent coder agreement, interview triangulation, or saturation claim is made. Cross-document comparison and secondary scholarship provide contextual checks but do not independently verify individual allocation decisions. Findings report provisions and evidence gaps; the discussion interprets possible implications.

Table 2

Category	Extraction question
Recognition	Does the provision identify OUT or a learning mode?
Screening	Which applicant characteristics are conditions of access?
Priority	How are programmes ranked and with what qualifications?
Coverage	Does a condition concern one item or the whole scheme?
Implementation	What application or payment steps are specified?
Evidence status	Is the statement an explicit rule, an omission or an interpretation?

Limitations and Research Ethics

The study does not include interviews, surveys, HESLB application-level data or a complete institutional loan register. It therefore cannot quantify ODL take-up, rejection rates, funding adequacy or effects on completion. Public policy documents describe rules but may not capture how staff apply them. Absence from the selected corpus is bounded absence, and competing

explanations include document scope, administrative capacity, resource scarcity and fragmented reporting. Neither discrimination nor intentional exclusion can be inferred from silence alone.

The research uses publicly accessible documents and published scholarship. No new participant data were collected for this analysis. Interviews with students and officials, and linked institutional and HESLB records, would require a separate empirical extension with appropriate permissions and ethical review. The paper's conclusions are accordingly confined to policy design and researchable hypotheses about effective access.

Results

Legal Eligibility and Explicit Recognition of OUT

In the consolidated Act, section 17 addresses eligibility for assistance, while section 16 covers financial assistance and its items (United Republic of Tanzania, 2008). The statutory wording provides a basis for consideration subject to conditions; it is not an unconditional entitlement to an award.

OUT is not uniformly absent from operational guidance. The 2009/2010 guidelines identify OUT students and specify a maximum six-year period in section 3.9 (HESLB, 2009). The 2020/2021 guidelines make an OUT exception to the full-time admission requirement in section 3.2(iii) (HESLB, 2020). This is decisive counterevidence to a claim of blanket formal exclusion. The distinction between recognition and access remains relevant, but it must begin from the actual wording.

The documentary evidence therefore supports a narrower result: formal recognition existed in the selected historical guidance. It does not establish how many OUT applicants received loans, whether particular applicants were wrongly refused, or whether ODL beyond OUT was accommodated in the same way. Those questions require implementation evidence rather than further inference from general wording.

Screening Conditions and Learner Circumstances

The 2021/2022 guidelines retain the OUT exception while barring undergraduate applicants with formal or regular employment income. They also set age and qualification-recency conditions (HESLB, 2021, sections 3.1–3.3). The 2024/2025 general criteria specify an age ceiling of 35, no formal or regular employment or contract income, and completion of qualifying education within the stated five-year window (HESLB, 2024, section 3.1). These are applicant conditions, not an express declaration that all ODL students are ineligible.

Their interaction with flexible study that depends on population composition. Some learners returning to education may fall outside screening conditions, whereas other distance learners may satisfy them. The documents do not show how many OUT applicants belong to either group. Consequently, differential exposure is a plausible mechanism to investigate, not a measured institutional disadvantage.

Programme Priorities and Benefit Coverage

The 2025/2026 guidelines combine vulnerability, merit and programme ranking. Their clusters distinguish several fields and include BA Kiswahili in Cluster One; they do not support reducing the entire priority structure to a STEM versus humanities binary (HESLB, 2025, sections 5–6). Programme priority is distinct from a guaranteed award and from eligibility by mode of study. Table 3 summarises the evidence and the inference each provision permits.

The same guidelines restrict meals and accommodation to full-time on-campus study while listing other financed items (HESLB, 2025, section 7). This is an item-specific restriction, not evidence that distance learners are disqualified from all assistance. Whether other items cover ODL participation adequately cannot be determined without cost and award data. Differences in benefit coverage may reflect differences in costs; their fairness requires assessment against actual study requirements.

Table 3

Design feature	Policy locator	Supported conclusion
OUT recognition	2009, §3.9; 2020, §3.2(iii)	Recognition documented; uptake unmeasured
Applicant filters	2021, §3; 2024, §3.1	Potential differential exposure; no mode-specific rate
Programme ranking	2025, §§5–6	Prioritisation; no unconditional guarantee
Meals and accommodation	2025, §7.1	Restricted benefit; not whole-scheme exclusion
Other study costs	2024, §7; 2025, §7	Adequacy requires cost and award data

What the Documents Do Not Establish

The selected documents do not provide the applicant-level denominators needed to compare loan success by mode, programme and need. An institution's appearance in policy guidance does not measure take-up, and national beneficiary totals cannot identify eligible students who did not apply. A reliable assessment would distinguish non-application, screening failure, unsuccessful allocation, delayed payment and inadequate benefit coverage.

Neither the policy provisions nor the secondary evidence cited here establishes systematic refusal of OUT applications or a universal absence of ODL beneficiaries from annual reporting. Such conclusions require traceable case records or comprehensive reporting evidence. The observable result is a set of rules and distinctions that can guide such investigation.

Discussion of the Results

The Politics of Eligibility without Inferred Intentionality

The findings revise the central argument from wholesale policy silence to the relationship between recognition and conditional access. Schneider and Ingram's (1993, 1997) framework to how categories distribute opportunities and burdens. An agency can recognise an institution while using screening and benefit arrangements that than others. This is a policy design question even when no discriminatory intent is established.

However, observed differences do not establish that policymakers regard ODL learners as less deserving. Administrative rules may arise from the scheme's intended population, budget constraints, legacy procedures or imperfect coordination. Distinguishing these explanations would require deliberative records and implementation evidence. The contribution is thus a testable proposition: flexible pathways should be examined at each point where formal recognition translates into an application, an allocation, and usable support.

Equity and the Fit between Rules and Study Costs

From a social justice perspective, recognition is necessary but insufficient for assessing participation. Redistribution concerns the resources that remain after fees and required study activities; representation concerns opportunities for affected learners to inform design (Fraser, 2005). These questions scrutinise a financing system without treating every difference as unfair. They also discourage assumptions that distance learners are uniformly employed, poor, rural or financially secure.

A practical equity assessment should compare students with similar assessed need and programme requirements across modes. It should examine whether applicants face different rejection reasons, whether funded items correspond to necessary costs, and whether payment timing fits flexible schedules. If differences persist after accounting for these factors, a stronger claim of disadvantage may be warranted. Conversely, evidence of comparable outcomes would challenge an ODL-specific explanation. The present study establishes neither result.

Digital inclusion adds a further consideration. Where connectivity or accessible learning materials are essential, nominal eligibility may leave an unfunded participation requirement. This does not justify importing campus allowances wholesale into ODL. It suggests measuring actual costs and examining whether existing item definitions can cover them consistently. Reform should respond to documented requirements rather than stereotypes about either mode.

National Priorities: Fiscal Constraints and Sustainability

Programme priorities have a defensible rationale where governments face shortages in health, teaching, technical expertise or other strategic areas. Public financing can support wider social returns and workforce planning. Limited budgets also require decisions about the number and level of awards, while repayment performance affects resources available to later cohorts. A credible equity analysis must acknowledge these objectives alongside individual need.

The issue is whether priority rules remain proportionate, transparent and open to review. A strategically valuable programme does not eliminate the need to assess an applicant's resources, and a lower-ranked programme may also deliver public benefits. For ODL, the relevant question is whether funding priorities operate consistently across equivalent accredited programmes and whether their combined effects are monitored. The analysis provides no basis for alleging that wealthier STEM applicants routinely displace poorer humanities applicants.

Employment-based targeting also creates a trade-off. It can reserve scarce finance for students without earnings, but a categorical proxy may obscure variation in disposable income. Testing an alternative would require administrative cost estimates, verification capacity and modelling of additional demand. The recommendation is to evaluate these choices, rather than assert that every working learner should receive the same subsidy or that programme priorities should be abolished immediately.

African Comparison and Theoretical Contribution

The NSFAS comparator demonstrates the possibility of identifying distance study within a financing framework. It does not show that South African arrangements are sufficient, transferable without adaptation or free of implementation problems. Its relevance lies in the explicit distinction between beneficiaries and packages. Tanzania can assess such design options against its own costs, eligibility objectives and fiscal capacity.

The theoretical contribution is to distinguish four stages through which financing design shapes access: formal recognition, applicant screening, benefit coverage and implementation. Each stage requires a different test. Recognition is established through explicit provisions; screening is assessed against applicant characteristics; coverage is evaluated against necessary study costs; and implementation is assessed through decisions and payment records. This distinction prevents an item-specific restriction from being misread as exclusion from an entire scheme. It also identifies where an equity concern can be tested and which institutional response would be appropriate.

Implications and Recommendations of the Study

Clarify Eligibility and Supported Costs

HESLB and OUT should jointly prepare accessible guidance responsibilities, and appeal routes for flexible study. The guidance should distinguish eligibility for the scheme from coverage of individual costs. Before issuing it, responsible officers should reconcile it with the applicable annual guidelines and current legal provisions. This is a relatively limited administrative step, although it requires staff time and consistent dissemination through institutional and regional support channels.

Establish an Evidence Base for Effective Access

A joint administrative review should link, with appropriate safeguards, admission or registration mode, applications, screening outcomes, awards, financed items and payment dates. Reporting should use clear denominators and distinguish institution from mode: studying at OUT should not automatically stand in for every form of ODL. Useful indicators include application rates among eligible students, award rates among applicants and reasons for non-award. Programme and assessed need should be considered alongside mode to avoid misleading comparisons.

This review can begin with a defined cohort and existing records before expanding data collection. It should include an assessment of missing fields, data protection requirements and the workload for institutional loan officers. Aggregated reporting would provide accountability without publishing identifiable financial information. The purpose is to establish whether and where unequal access occurs, rather than presume the result.

Pilot Support Based on Measured Participation Costs

A bounded pilot should assess the necessary costs of an eligible ODL study, including any verified digital, practical and travel requirements. It should first test whether existing financed items and payment arrangements can accommodate these costs. Any additional support should be costed against the available budget, with transparent selection criteria and evaluation of

participation and administrative feasibility. A pilot avoids committing to universal expansion before the scale of need and delivery costs are understood.

Review the Interaction of Need and Programme Priority

Review programme ranking with evidence on workforce needs, applicant vulnerability, and allocation outcomes. Options include clearer ranking reasons, a protected need-based allocation within available resources, or targeted incentives for shortage fields. Each option requires modelling of costs and displacement effects. Loan forgiveness is not advanced as an immediate solution because it would create additional fiscal and recovery implications requiring separate evaluation.

Extend the Research through Institutional and Participant Evidence

A subsequent study should combine administrative comparisons with interviews involving funded and unfunded students, OUT loan officers and HESLB officials. It should examine application experiences and operational explanations, including evidence that challenges an exclusion hypothesis. Sampling should distinguish modes, programmes and learner circumstances. This extension would establish whether the design mechanisms identified here translate into unequal outcomes, and could inform reform more directly than categorical claims based on documents alone.

Conclusions

This paper examines how Tanzania's student loan rules relate to flexible higher education pathways. The documentary evidence supports formal recognition of OUT and a distinction between scheme eligibility, screening conditions and coverage of particular benefits. It does not support a blanket claim that OUT students were absent from policy or that HESLB deliberately excluded ODL learners. This distinction strengthens the account of the politics of eligibility by making its claims responsive to counterevidence.

The central equity question is whether students with comparable assessed need and program requirements receive usable support across learning modes. The analysis identifies the policy stages at which examined, rather than asserting an observed disparity. HESLB and OUT can begin with clearer guidance and a defined-cohort records review, using the results to determine whether a costed support pilot is warranted. This sequence links reform to demonstrated barriers, protects scarce resources, and makes the equity implications of flexible study an explicit subject of financing policy.

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Bridging the Gap between Employers' Expectations and Classroom Realities: Perspectives from Education Stakeholders on Graduate Teachers in Tanzania

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Abstract

Amid growing concerns about the classroom readiness of graduate teachers in Tanzania, this study examined the qualities education stakeholders expect from graduate teachers and the extent to which these expectations are demonstrated in secondary school practice. The study adopted a qualitative multiple-case study design involving 16 participants comprising six Heads of Schools, seven School Quality Assurers, and three District Education Officers from Dar es Salaam, Dodoma, Kilimanjaro, and Morogoro. Data were collected through semi-structured interviews, focus group discussions, and documentary analysis and analysed using a hybrid thematic approach combining deductive and inductive coding, supported by NVivo 11. The findings show that stakeholders primarily expect graduate teachers to possess strong subject content knowledge, sound pedagogical skills, professional ethics, creativity, and vision for effective learning. Graduate teachers were generally perceived to meet expectations in subject content knowledge, while substantial gaps were identified in the practical application of pedagogical knowledge and skills. Perceptions of professional ethics were mixed, indicating variability in professional conduct. Creativity and vision emerged as additional professional expectations rather than demonstrated competence deficits. The study concludes that graduate teacher preparedness is multidimensional and requires stronger integration of subject knowledge, practical pedagogy, professional ethics, creativity, and reflective professional development. Closer feedback between teacher-education institutions and school-level stakeholders is recommended to strengthen alignment between graduate preparation and classroom expectations.

Keywords: *Graduate teacher preparation, employer expectations, classroom readiness, pedagogical content knowledge (PCK), professional ethics, Tanzania*

Introduction

The preparation of graduate teachers within Higher Education Institutions (HEIs) plays a pivotal role in shaping the quality, relevance, and effectiveness

of education systems globally (Taylor, 2023). Well-prepared teachers are essential not only for improving student learning outcomes but also for fostering innovation, critical thinking, and social development.

Contemporary teacher education frameworks emphasise the development of multidimensional competencies, particularly Subject Content Knowledge (SCK), Pedagogical Knowledge (PK), and professional ethics, which collectively influence instructional effectiveness and learner engagement (König et al., 2023). Central to this discourse is Shulman's (1986) concept of Pedagogical Content Knowledge (PCK), which underscores the integration of content mastery and pedagogical expertise as fundamental for effective teaching. Subsequent studies have reinforced the importance of PCK in enabling teachers to transform subject knowledge into meaningful learning experiences tailored to diverse classroom contexts (Van Driel & Berry, 2022).

Despite the global recognition of these competencies, aligning teacher preparation programmes with such multidimensional expectations remains a persistent challenge, particularly in developing contexts. Empirical evidence indicates that while many graduate teachers demonstrate strong subject knowledge, their ability to apply pedagogical strategies effectively and uphold professional standards often falls short (Caingcoy & Gallego, 2021).

In the East African region, similar concerns have been documented. For instance, Msamba et al. (2023) report that although in-service training has improved competency-based teaching practices in Tanzania, significant gaps remain in practical classroom implementation. Likewise, Mwakyobwe and Shawa (2023) observe that competency-based approaches are applied inconsistently in teacher training colleges, thereby limiting the development of essential pedagogical skills among pre-service teachers.

Variations in teacher preparation across HEIs further compound these challenges. Studies from neighbouring countries reveal inconsistencies in curriculum implementation, instructional quality, and resource allocation, which ultimately affect teacher preparedness and classroom performance (Atuhurra & Kaffenberger, 2022). Such variation suggests that possession of a university teaching qualification does not necessarily imply uniform professional readiness, as the quality and extent of opportunities for developing practical teaching competencies may differ across institutions and training contexts (Atuhurra & Kaffenberger, 2022; Mwakyobwe & Shawa, 2023).

In Tanzania, similar concerns have been raised regarding the uneven integration of technological and pedagogical competencies, leaving many graduate teachers inadequately prepared for contemporary classroom demands (Kafyulilo & Fisser, 2019; Nyangas, 2024). Moreover, limited emphasis on professional ethics, creativity, and reflective practice in teacher education programmes has been identified as a critical gap, undermining the development of well-rounded educators capable of adapting to evolving educational environments (Mweemba & Awuor, 2022).

From an employer's perspective, concerns regarding the preparedness of graduate teachers have become increasingly prominent. Education stakeholders consistently report that while graduates often possess adequate subject knowledge, they frequently lack the pedagogical skills necessary to engage learners effectively and the professional attributes required to uphold ethical standards in practice (Ozturk, 2026).

Nyangas (2024) highlights that although teachers show willingness to adopt Information and Communication Technology (ICT), their limited practical competence constrains effective integration. Similarly, Siayi et al. (2023) note the continued dominance of teacher-centred approaches, which hinder active learning and student participation. These observations suggest a misalignment between the competencies developed during university training and the expectations of employers within school environments.

While existing studies have extensively examined individual components of teacher competence, particularly SCK, PK, and PCK, there remains limited empirical evidence that integrates these dimensions with broader professional attributes such as ethics, creativity, and vision, particularly from the perspective of employers in Tanzania. Examining these competencies together is important because effective classroom practice requires more than isolated mastery of subject content or pedagogy; it also depends on teachers' professional judgement, adaptability, ethical conduct, and capacity to respond constructively to changing learning environments (König et al., 2023; Lawrent, 2022; Shulman, 1986; Van Driel & Berry, 2022).

Furthermore, much of the current literature relies on teacher self-assessments or institutional evaluations, with insufficient attention given to stakeholder-based assessments of graduate performance in real classroom settings. This creates a critical gap in understanding how teacher preparation translates into practice and whether it meets the dynamic demands of contemporary education systems.

This study addresses this gap by examining the alignment between employers' expectations and the actual competencies demonstrated by graduate teachers in Tanzanian secondary schools. Unlike previous studies, it adopts a stakeholder-centred approach, drawing insights from key education actors responsible for supervising and evaluating teachers' performance. By integrating pedagogical, ethical, and professional dimensions, including creativity and vision, this study provides a more comprehensive understanding of teacher preparedness and its implications for educational quality. Accordingly, the study is guided by the following research questions:

- i) What qualities do employers expect from graduate teachers in Tanzanian secondary schools?
- ii) To what extent do graduate teachers meet these expectations in terms of subject content knowledge, pedagogical skills, and professional ethics?

By addressing these questions, the study contributes to the ongoing discourse on teacher education reform in Tanzania by offering evidence-based insights that can inform curriculum development, policy formulation, and professional development initiatives aimed at enhancing the quality and relevance of graduate teacher preparation.

Literature Review

This section synthesises existing literature on teacher competencies, with particular emphasis on SCK, PK, PCK, and broader professional dimensions, including ethics, creativity, and vision. Rather than treating these domains in isolation, the review critically examines how they interact within teacher preparation and where gaps persist, particularly in the Tanzanian context.

A substantial body of literature consistently identifies SCK, PK, and PCK as the foundational pillars of effective teaching. Studies across different contexts indicate that strong subject mastery remains a central outcome of teacher education programmes, forming the basis upon which pedagogical practices are developed (Komba & Mwakabenga, 2019; Mwakyobwe & Shawa, 2023).

At the same time, pedagogical knowledge is widely recognised as the mechanism through which content is transformed into meaningful learning experiences, enabling teachers to manage classrooms, design instruction, and assess learning effectively (Sonmark et al., 2017; Barak, 2023). Building on this, PCK has emerged as a critical integrative construct that captures the dynamic interaction between content and pedagogy and enables teachers to adapt instruction to diverse learners and contexts (Sarkar et al., 2024; Van Driel & Berry, 2022).

Despite this theoretical consensus, empirical evidence reveals important tensions in how these competencies are developed and applied in practice. While teacher education programmes often succeed in cultivating strong SCK, multiple studies indicate that integrating SCK and PK into functional PCK remains inconsistent, particularly in developing contexts.

Kipanda and Maro (2024) found that even experienced teachers struggled to implement learner-centred approaches, suggesting limitations in the practical application of pedagogical knowledge. Similarly, Kipanda and Maro (2024) reported discrepancies between teachers' perceived and actual pedagogical practices, while Edward and Shukia (2022) observed gaps in pedagogical knowledge among pre-primary teachers despite moderate content understanding. These findings collectively suggest that the challenge is not merely the acquisition of knowledge, but its effective integration and application within classroom environments.

In the Tanzanian context, these challenges are further compounded by structural and institutional constraints. Studies highlight persistent difficulties in bridging the gap between pedagogical theory and classroom practice, often due to limited training resources, insufficient practicum experiences, and inadequate ongoing professional support (Mgaya, 2024; Nyangas, 2024; Aydın & Turhan, 2023).

Kafyulilo and Fisser (2019) and Mateka et al. (2024) emphasise that deficiencies in curriculum design and implementation hinder the development of integrated competencies, while Mafugu (2022) points to weaknesses in mentorship and teaching practice as critical barriers to experiential learning. Additionally, resource limitations, particularly regarding teaching materials and ICT integration, constrain opportunities for innovative pedagogy (Kasulwa, 2023; Musa & Mbeya, 2022). Collectively, these studies indicate that while the conceptual foundations of teacher preparation are well established, their translation into practice remains uneven and contextually constrained.

Beyond the core domains of SCK, PK, and PCK, there is growing recognition of the importance of professional ethics, creativity, and vision as integral components of teacher effectiveness. However, the literature suggests that these dimensions are often underemphasised or insufficiently integrated into teacher education programmes. Ethical competence, encompassing professional conduct, fairness, responsibility, and respect, is widely acknowledged as essential for fostering trust and maintaining effective learning environments (Rweyemamu & Kamugisha, 2022; Lawrent, 2022).

Nevertheless, evidence indicates that ethics education in Tanzania remains limited, with existing initiatives often lacking depth and sustained impact on professional behaviour (Lawrent, 2022; Fussy, 2018). This gap raises concerns about graduate teachers' preparedness to navigate the moral and professional demands of the teaching profession.

Similarly, creativity and innovation are increasingly recognised as critical competencies in contemporary education, particularly amid digital transformation and diverse learner needs. Research suggests that creative pedagogical practices enhance student engagement, adaptability, and problem-solving skills (König et al., 2023). However, studies also highlight significant constraints in the adoption of innovative teaching approaches, often linked to limited resources, inadequate training, and insufficient exposure to technology-enhanced learning environments (Kasulwa, 2023; Nyangas, 2024). This indicates a disconnect between the evolving expectations of modern education systems and the competencies developed through existing teacher preparation programmes.

The notion of teacher vision, understood as the ability to inspire, lead, and foster long-term educational goals, has received comparatively less empirical attention but remains a critical dimension of professional practice. Mweemba and Awuor (2022) emphasise the role of reflective practice and professional identity in shaping teachers' capacity to influence learning beyond immediate instructional outcomes. Such capacities are particularly important where teachers are expected not only to deliver prescribed content but also to motivate learners, respond to contextual challenges, and contribute to continuous school improvement. However, limited emphasis on leadership development and reflective competencies within teacher education programmes may constrain the development of such vision-oriented teaching practices, especially in resource-constrained educational settings (Mweemba & Awuor, 2022).

The literature reveals three key insights. First, there is broad agreement on the importance of SCK, PK, and PCK as foundational competencies, yet their integration into effective classroom practice remains inconsistent. Second, while pedagogical and structural challenges have been widely documented, there is a limited synthesis of how these challenges interact with broader professional dimensions such as ethics, creativity, and vision. Third, existing studies in Tanzania largely focus on isolated competencies or rely on teacher self-reports, with insufficient attention given to employer or stakeholder perspectives on teacher performance in real classroom contexts.

This gap underscores the need for a more holistic and empirically grounded understanding of teacher preparedness that integrates core instructional competencies with professional and innovative dimensions. By examining teacher competence through the lens of employer expectations, this study contributes to the literature by offering a multidimensional, practice-oriented perspective on the alignment between teacher preparation and classroom realities in Tanzania.

Theoretical Framework

This study is primarily grounded in the concept of PCK as advanced by Shulman (1986), which emphasises the integration of SCK and PK in effective teaching. PCK provides a foundational lens for understanding how teachers transform disciplinary knowledge into meaningful learning experiences that are accessible to diverse learners. Within this framework, effective teaching is not merely the possession of subject expertise but the ability to apply appropriate pedagogical strategies to facilitate student understanding.

However, while PCK offers a robust explanation of instructional competence, it does not fully capture broader professional dimensions such as ethical conduct, creativity, and vision, which are increasingly recognised as essential components of teacher effectiveness (König et al., 2023; Lawrent, 2022; Mweemba & Awuor, 2022). To address this limitation, the study is further informed by complementary perspectives on teacher professionalism and ethical competence. These perspectives emphasise the role of values, reflective practice, accountability, and professional identity in shaping teachers' behaviour and decision-making within educational contexts

In addition, contemporary views of teacher competence extend beyond knowledge and skills to include creativity and vision as critical elements of effective and transformative teaching (König et al., 2023; Mweemba & Awuor, 2022). Creativity enables teachers to adapt instructional strategies to diverse and resource-constrained environments, while vision reflects the ability to inspire, guide, and foster long-term learning outcomes (Nyangas, 2024; Mweemba & Awuor, 2022). These dimensions align with broader conceptions of teacher competence as a multidimensional practice integrating cognitive, behavioural, and ethical components (Caingcoy & Gallego, 2021; König et al., 2023).

By integrating PCK with teacher professionalism and ethical competence frameworks, this study adopts a holistic theoretical perspective that captures both instructional and professional dimensions of teaching. This integrated

framework provides a basis for analysing the alignment between employer expectations and the competencies demonstrated by graduate teachers, particularly in subject knowledge, pedagogical practice, ethical conduct, creativity, and vision in the Tanzanian context.

Conceptual Framework

This study adopts a multidimensional conceptual framework to examine the extent to which graduate teachers meet employer expectations in Tanzanian secondary schools. The framework conceptualises teacher competence as an integration of instructional knowledge, professional attributes, and transformative capacities that collectively influence classroom performance. The framework is author-developed, drawing primarily on Shulman's (1986) PCK perspective and complementary literature on professional ethics, creativity, and teacher vision.

At the foundation of the framework are SCK and PK, which interact to form PCK. These components reflect the teacher's ability to understand the subject matter and to deliver it effectively using appropriate instructional strategies. SCK ensures mastery of disciplinary content, while PK enables the design and implementation of teaching methods that facilitate student learning. Their integration into PCK reflects the practical application of knowledge in real classroom contexts and is considered a core determinant of instructional effectiveness.

Beyond these instructional competencies, the framework incorporates professional ethics as a critical dimension of teacher performance. Ethical competence encompasses professional conduct, responsibility, integrity, and adherence to institutional and societal expectations. It shapes teacher behaviour, influences classroom relationships, and contributes to trust and accountability within the education system.

In addition, the framework recognises creativity as an essential competency in contemporary teaching. Creativity refers to the teacher's ability to employ innovative teaching approaches, adapt to diverse classroom conditions, and utilise available resources effectively, particularly in environments with limited infrastructure. It reflects the capacity for flexibility and responsiveness in instructional practice.

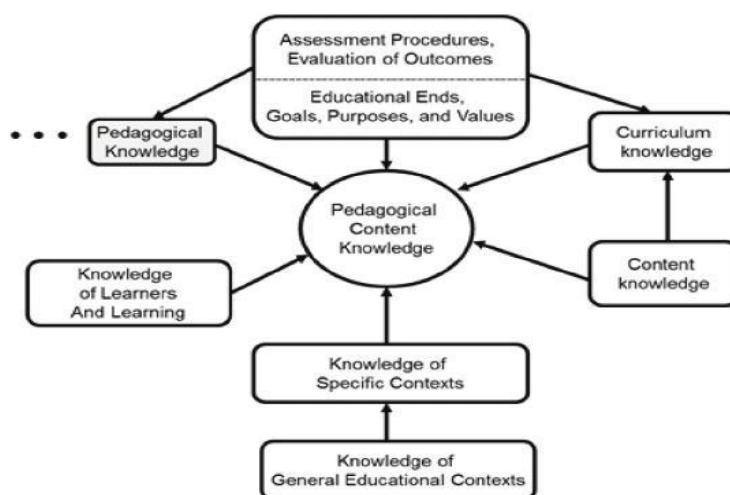
Furthermore, vision is conceptualised as a higher-order professional attribute that captures the teacher's ability to inspire, guide, and motivate learners towards long-term educational goals. Vision reflects elements of leadership, reflective practice, and commitment to continuous improvement, enabling

teachers to go beyond routine instruction and contribute to meaningful learning experiences.

These dimensions, SCK, PK/PCK, professional ethics, creativity, and vision, are conceptualised as independent but interrelated constructs that collectively influence the dependent outcome of this study, namely the extent to which graduate teachers meet employer expectations. This outcome is assessed through stakeholder perceptions, particularly from School Heads, School Quality Assurers, and District Education Officers, who evaluate teacher performance in real classroom settings.

Accordingly, the conceptual framework posits that effective teacher performance is determined not by subject knowledge alone but by the integrated application of pedagogical competence, ethical conduct, creative practice, and a visionary orientation. As shown in Figure 1, the degree of alignment between these competencies and employer expectations ultimately determines the classroom readiness and professional effectiveness of graduate teachers.

Figure 1:
Conceptual Framework for Graduate Teacher Competence and Employer Expectation Alignment in Tanzania



Methodology

This section outlines the research design, sampling procedures, data collection instruments, and data analysis techniques used to explore stakeholders' perspectives on graduate teachers in Tanzanian secondary schools, particularly regarding employers' expectations of pedagogical skills and professional ethics.

Research Approach

The study employed a qualitative research approach to explore stakeholders' perceptions and experiences regarding the competencies of graduate teachers and the extent to which these competencies align with employer expectations. The qualitative approach was appropriate because it enabled an in-depth understanding of participants' views within their professional and institutional contexts.

Research Design

The study adopted a multiple-case study design. Each case was defined as a stakeholder category comprising School Heads, School Quality Assurers, and District Education Officers within specific regional contexts. This design enabled comparison of perspectives across stakeholder groups and locations while preserving the contextual characteristics of each case. It also facilitated an in-depth examination of employer expectations and stakeholders' assessments of graduate teachers' competencies in real educational settings.

Population and Sampling Techniques

The study was conducted in four regions: Dar es Salaam (Kinondoni), Dodoma, Kilimanjaro, and Morogoro. These regions were selected for their high concentration of universities and secondary schools that employ graduate teachers. They also provided contextual variation (urban and peri-urban settings, public and faith-based schools), enhancing the diversity and transferability of findings.

The study sample comprised 16 participants, including six School Heads (HoSs), seven School Quality Assurers (SQAs), and three District Education Officers (DEOs). Participants were selected purposively based on their direct supervisory, evaluative, or administrative experience with graduate teachers. Snowball sampling was subsequently used, where necessary, to identify additional information-rich participants with relevant knowledge and experience. To minimise potential bias associated with referral-based sampling, participants were drawn from different regions, institutional settings, and professional roles.

To minimise bias associated with snowball sampling, participants were selected across diverse institutions, regions, and roles, and findings were triangulated across multiple data sources. The final sample included stakeholders from both public and faith-based institutions.

Data Collection Methods

Data were collected using semi-structured interviews, focus group discussions (FGDs), and documentary analysis. Interviews were conducted with HoSs, and DEOs, using guides developed from the study objectives and theoretical framework, lasting 45–60 minutes. FGDs were conducted with SQAs (4–6 participants per group) and lasted 60–90 minutes, using structured discussion guides aligned with key constructs.

The instruments were piloted ($n = 2$) to ensure clarity and alignment with SCK, PK, PCK, and ethical standards, and were refined accordingly. Documentary analysis included curriculum guidelines, teacher training syllabi (2018–2023), performance reports, and national education policies, supporting data triangulation.

Trustworthiness

Trustworthiness was ensured through credibility, dependability, confirmability, and transferability. Credibility was achieved through triangulation across interviews, FGDs, and documents, as well as member checking with selected participants ($n = 6$). Dependability was ensured through maintaining an audit trail of research procedures. Confirmability was strengthened through peer debriefing and reflexivity to minimise researcher bias. Transferability was supported by providing detailed contextual descriptions of the study.

Data Analysis

All interviews and FGDs were transcribed verbatim. The data were analysed using thematic analysis, while NVivo 11 was used to support data organisation, coding, and retrieval. A hybrid thematic analysis approach combining deductive and inductive coding was applied. Deductive coding was guided by SCK, PK, PCK, and professional ethics, while inductive coding allowed additional themes, including creativity and vision, to emerge from the data.

The analysis followed the thematic analysis procedures outlined by Braun and Clarke (2020), including familiarisation with the data, generation of initial codes, development of candidate themes, review of themes, definition and naming of themes, and interpretation of the findings. A second coder reviewed selected transcripts to enhance analytical consistency, and discrepancies were resolved through discussion. Codes such as “lecture dominance” and “limited teaching methods” were grouped under “pedagogical constraints,” which contributed to the broader theme “gap in pedagogical application.” This iterative process supported a systematic and transparent interpretation of the data.

Ethical Considerations

Ethical clearance was ensured through informed consent, confidentiality, and voluntary participation. Participants received information sheets and signed consent forms. Pseudonyms were used to maintain anonymity, and data were securely stored in password-protected files. Participants were informed of their right to withdraw at any time. All procedures complied with institutional ethical standards.

Results

This section presents the findings derived from qualitative data collected through semi-structured interviews and focus group discussions (FGDs) with District Education Officers (DEOs), Heads of Schools (HoSs), and School Quality Assurers (SQAs). The findings are organised around the two research questions. To enhance transparency, counts (n) indicate the number of participants who mentioned each theme during coding, while percentages are reported for descriptive purposes only and are not intended for statistical generalisation.

RQ 1: What qualities do education stakeholders expect from graduate teachers in Tanzanian secondary schools? The question was guided by key dimensions of teacher competence, including subject knowledge and expertise, pedagogical skills, professional ethics, creativity, and vision for effective learning. These dimensions reflect a holistic understanding of teacher competence that integrates knowledge, skills, and professional dispositions required for effective teaching. The findings derived from these indicators are summarised in Table 1.1.

Table 1:
Employers' Expectations of Graduate Teachers' Qualities (n = 16)

Response	DEOs n = 3	SQAs n = 7	HoSs n = 6	Total N = 16 (%)
1 High level of knowledge and expertise	3	6	6	15 (93.8%)
2 Sound pedagogical skills	3	5	6	14 (87.5%)
3 Professionalism by maintaining teaching ethics	2	5	5	12 (75.0%)
4 Creativity	1	5	4	10 (62.5%)
5 Vision that will enhance effective learning	2	3	2	7 (43.8%)

High Level of Knowledge and Expertise (SCK)

Table 1.1 shows that the majority of respondents (n = 15) indicated that graduate teachers are expected to possess strong Subject Content Knowledge.

Stakeholders consistently associated higher academic qualifications with deeper subject mastery and professional competence. One District Education

Officer noted:

The higher the level of education, the higher the expectations. Graduate teachers are expected to demonstrate deeper subject mastery and broader professional competence compared to diploma teachers” (Interview-DEO-R1).

Similarly, a Head of School stated:

Degree holders are expected to have greater expertise due to their extended training, particularly in their specialised subjects (Interview-HoS-R2).

These responses imply a shared expectation that university training should translate into advanced subject expertise and improved instructional quality.

Sound Pedagogical Skills (PK/PCK)

A majority of respondents (n = 14) emphasised the importance of pedagogical competence, particularly the ability to apply diverse, learner-centred teaching strategies. One SQA participant explained:

We expected graduate teachers to move beyond rote teaching and use diverse methods such as role play and interactive strategies to support active learning” (FGD-SQA-R3).

Another Head of School added:

Most graduate teachers rely heavily on group discussions. We expected them to use a wider range of teaching methods learned at university (Interview-HoS-R4).

These findings suggest that employers expect not only theoretical pedagogical knowledge but also its effective classroom application.

Professional Ethics

Respondents (n = 12) identified professional ethics as an important expectation. Stakeholders emphasised professional conduct, moral integrity, responsibility, and the role of graduate teachers as positive examples to learners. One Head of School stated:

Graduate teachers are expected to demonstrate professionalism in behaviour, communication, and ethical conduct, as they serve as role models to students (Interview-HoS-R5).

These findings highlight that ethical competence is viewed as an essential component of teacher professionalism.

Creativity in Teaching

Creativity was mentioned by respondents (n = 10), who expected teachers to adopt innovative teaching approaches and utilise available resources effectively. One SQA participant noted:

Graduate teachers should be creative in designing teaching materials and adapting to different classroom situations using available resources (FGD-SQA-R6).

This reflects expectations for flexible, adaptive, and engaging teaching practices.

Vision for Enhancing Learning

A smaller group of respondents (n = 7) emphasised the need for teachers to possess a clear vision for motivating students and enhancing learning outcomes. One DEO stated:

We need teachers who can inspire students and provide direction for learning, not just deliver content (Interview-DEO-R7).

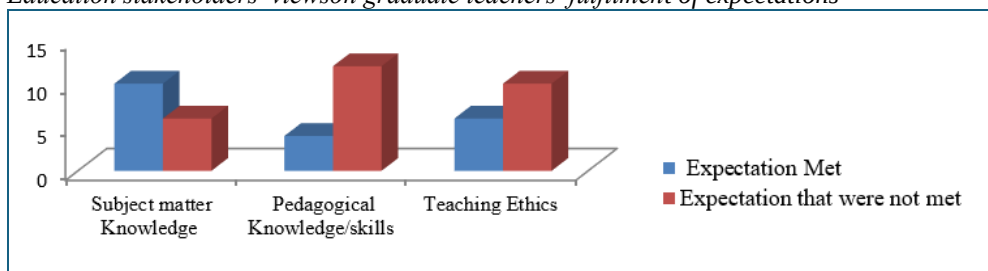
This suggests that visionary teaching is recognised but less consistently articulated among employers.

RQ 2: To what extent do graduate teachers meet these expectations in terms of subject content knowledge, pedagogical skills, and professional ethics? It examined the extent to which graduate teachers meet employer expectations in key areas of teacher competence: Subject Content Knowledge, pedagogical skills, and professional ethics.

Figure 1.1 presents employers' perceptions regarding the extent to which graduate teachers meet expectations in three key domains: SCK, Pedagogical Knowledge and Skills (PK), and professional ethics. Counts reflect coded responses across participants (n = 16) and are used descriptively to indicate the prevalence of views rather than statistical generalisation.

Figure 1:

Education stakeholders' viewson graduate teachers' fulfilment of expectations



Regarding Subject Content Knowledge, the majority of respondents ($n = 10$) indicated that expectations were met. Participants consistently acknowledged that graduate teachers demonstrate a strong grasp of subject matter, which supports effective instructional delivery. One School Quality Assurer noted that *“most graduate teachers demonstrate strong understanding of subject content, which supports effective teaching”* (FGD-SQA-R8). This suggests that university training remains effective in equipping graduates with foundational disciplinary knowledge. However, a small number of respondents highlighted inconsistencies, indicating that not all graduates demonstrate the same level of mastery.

In contrast, findings on pedagogical knowledge and skills reveal a substantial gap between expectations and practice. Only four respondents ($n = 4$) reported that expectations in this domain were met, while the majority ($n = 12$) indicated that they were not. Participants frequently observed that, although graduate teachers possess strong subject knowledge, they struggle to apply effective teaching methodologies. As one Head of School explained,

Graduate teachers are strong in content but weak in teaching methods. They rely mostly on lectures and group discussions” (Interview-HoS-R9). Similarly, a District Education Officer noted that “they struggle to engage students and apply appropriate teaching strategies in different classroom situations (Interview-DEO-R10).

These responses point to a clear disconnect between theoretical pedagogical preparation and its practical application in classroom settings.

Regarding teaching ethics and professionalism, the findings indicate mixed perceptions among employers. An equal number of respondents ($n = 8$) reported that expectations were met and unmet. This suggests variability in how graduate teachers demonstrate professional conduct in practice. One respondent observed that:

Some graduate teachers demonstrate good professionalism, but others show weaknesses in communication, commitment, and conduct (Interview-HoS-R11).

This variation indicates that while ethical competence is present among some graduates, it is not consistently developed across all individuals. Institutional references have been anonymised to protect confidentiality and ensure ethical reporting.

Discussion

This section interprets the findings in relation to existing literature and theoretical perspectives, focusing on the alignment between stakeholder expectations and graduate teachers' demonstrated competencies. The findings indicate comparatively strong subject content knowledge, gaps in pedagogical application, variation in professional ethics, and growing recognition of creativity and vision, suggesting that graduate teacher preparedness is multidimensional and cannot be judged by academic qualifications alone.

Alignment Between Expectations and Teacher Preparation

The findings confirm that stakeholders place considerable emphasis on SCK, PK, and PCK, consistent with prior studies (Taylor, 2023; König et al., 2023). Fifteen of the 16 participants identified a high level of knowledge and expertise as an expected quality, while 14 emphasised sound pedagogical knowledge and skills. This indicates that stakeholders expect graduate teachers not merely to know their subject areas but also to transform disciplinary knowledge into effective classroom instruction.

However, the findings also demonstrate that strong SCK does not automatically translate into effective teaching unless it is integrated with pedagogical practice. This supports the foundational arguments of Shulman (1986) and subsequent work by Van Driel and Berry (2022). Although 10 participants perceived graduate teachers as meeting expectations in SCK, only four considered pedagogical expectations to have been met. This difference suggests that disciplinary knowledge is more consistently demonstrated than the ability to convert that knowledge into pedagogically appropriate learning experiences.

Rather than indicating a general weakness in teacher preparation, the pattern points to uneven development across competence domains. Graduate teachers appear to demonstrate comparatively stronger mastery of subject matter than the practical pedagogical repertoire required to address learner differences and classroom demands. From a PCK perspective, the central challenge

concerns how teachers integrate what they know with how they represent, adapt, and communicate that knowledge to learners. The findings therefore suggest that subject preparation may be relatively strong while the practical enactment of pedagogical knowledge remains less consistently developed.

Pedagogical Gap and Practical Training

A key finding is the persistent gap between expected and demonstrated pedagogical competence. While stakeholders emphasised learner-centred approaches, graduate teachers were perceived as relying on a relatively narrow range of teaching strategies. This pattern aligns with earlier studies (Mgaya, 2024; Nyangas, 2024; Siayi et al., 2023). The magnitude of this perceived gap is notable. Twelve of the 16 participants indicated that pedagogical expectations were not met, compared with only four who considered them met. Participants particularly referred to reliance on lectures and group discussions, difficulties engaging learners, and challenges in selecting appropriate approaches for different classroom situations.

This finding should not necessarily be interpreted as evidence that graduate teachers lack pedagogical knowledge altogether. Rather, it suggests difficulty in translating pedagogical knowledge into context-sensitive classroom practice. Teachers may understand instructional principles theoretically but encounter challenges when adapting them to learner diversity, classroom size, available resources, and other realities of school practice.

Previous research has associated such theory–practice gaps with limited practicum exposure (Mwakyobwe & Shawa, 2023). The present study similarly identifies difficulties in translating theoretical pedagogical knowledge into classroom practice, although it did not directly examine practicum exposure as a causal factor. These findings support calls for more practice-oriented teacher preparation (Barak, 2023; Sonmark et al., 2017). More sustained opportunities for supervised teaching practice, classroom observation, mentoring, lesson experimentation, and structured reflection may therefore help strengthen the relationship between pedagogical knowledge and classroom performance. Such experiences can provide opportunities for prospective teachers to practise adapting instructional approaches before assuming full professional responsibilities.

Professional Ethics and Teacher Identity

The findings on professional ethics reveal substantial variation. Eight participants considered professional expectations to have been met, while eight indicated that they had not. This differs from the clearer patterns observed for subject knowledge and pedagogical competence and suggests

that ethical and professional behaviour is not demonstrated consistently among graduate teachers. This finding is consistent with studies by Rweyemamu and Kamugisha (2022) and Lawrent (2022), which document ethical challenges within Tanzanian schools. The reported weaknesses in communication, commitment, and conduct further suggest that professional ethics extends beyond formal knowledge of codes and regulations.

Ethical competence involves the consistent application of professional values in everyday relationships, responsibilities, and decision-making. In this sense, professional identity is likely to be shaped not only during university preparation but also through mentoring, institutional culture, professional socialisation, and continued reflective practice. Mweemba and Awuor (2022) highlight the importance of reflection in professional development, while Fussy (2018) links ethical conduct with trust and professionalism.

Teacher preparation may therefore need to move beyond presenting ethics primarily as theoretical knowledge or regulatory requirements. Greater use of professional dilemmas, case-based discussion, supervised practice, mentoring, and reflective evaluation could provide opportunities for prospective teachers to apply professional values within realistic educational situations.

Creativity and Vision as Emerging Competencies

The findings also identify creativity and vision as important dimensions of stakeholder expectations. Creativity was identified by 10 participants, whereas vision was mentioned by seven. This pattern suggests that both qualities are recognised as relevant to contemporary teaching, although they are less consistently emphasised than subject knowledge, pedagogical competence, and professional ethics.

This finding aligns with Nyangas (2024), who emphasises the growing importance of innovative instructional practices. Participants associated creativity with developing teaching materials, adapting instructional strategies, and making effective use of available resources.

In resource-constrained settings, creativity may therefore represent more than an optional professional attribute. It may function as a practical competence through which teachers respond to shortages of instructional resources, diverse learner needs, and changing classroom conditions while maintaining meaningful learning experiences. Vision was associated with the ability to inspire learners, provide educational direction, and move beyond routine content delivery. This is consistent with Mweemba and Awuor (2022) and

Mateka et al. (2024), who link broader professional capacities with reflective and developmental dimensions of teaching.

The comparatively lower frequency with which vision was identified may indicate that it is less explicitly articulated or less immediately observable than competencies such as subject mastery and instructional technique. Nevertheless, its emergence from stakeholder accounts suggests that some education stakeholders expect graduate teachers to contribute not only to immediate classroom instruction but also to learners' longer-term motivation and educational development.

Importantly, the findings provide stronger evidence that creativity and vision are stakeholder expectations than that graduate teachers consistently fail to demonstrate them. The second research question assessed actual performance primarily in SCK, pedagogical skills, and professional ethics. Creativity and vision should therefore be interpreted as emerging professional expectations rather than conclusively demonstrated competence deficits.

Overall Interpretation of the Findings

Overall, the strongest perceived alignment was evident in subject content knowledge, while the most pronounced perceived mismatch concerned the practical application of pedagogy. Professional ethics showed substantial variation, whereas creativity and vision broadened the range of competencies stakeholders associated with effective contemporary teaching.

This pattern suggests that classroom readiness cannot be assessed on the basis of academic qualifications or disciplinary expertise alone. Graduate teacher preparedness appears to depend on how effectively subject knowledge is combined with pedagogical application, professional conduct, adaptability, creativity, and a capacity to provide educational direction.

The findings therefore support a more integrated conception of teacher preparation in which SCK, PK/PCK, professional ethics, creativity, and vision are developed as complementary dimensions. Closer and more systematic feedback between teacher-education institutions and school-level stakeholders may help ensure that preparation programmes remain responsive to the competencies required and observed in actual classroom environments.

Conclusion

This study examined the qualities education stakeholders expect from graduate teachers and the extent to which graduate teachers demonstrate these qualities in Tanzanian secondary schools. Regarding the first research

question, the findings show that stakeholders expect graduate teachers to demonstrate strong subject content knowledge, sound pedagogical competence, professional ethics, creativity, and a clear vision for enhancing learning. Subject knowledge and pedagogical competence emerged as the most widely emphasised expectations, while professional ethics, creativity, and vision were also regarded as important dimensions of effective teaching.

Regarding the second research question, the findings reveal uneven alignment between these expectations and graduate teachers' demonstrated competencies. Graduate teachers were generally perceived to meet expectations in subject content knowledge, whereas a substantial gap was evident in the practical application of pedagogical knowledge and skills. Perceptions of professional ethics were evenly divided, indicating variability in the consistency with which professional conduct is demonstrated.

The study therefore concludes that graduate teacher preparedness cannot be understood in terms of subject knowledge alone. Effective classroom readiness requires the integration of disciplinary knowledge with pedagogical competence, professional ethics, creativity, and professional vision. Strengthening practice-oriented teacher preparation, reflective professional development, and sustained feedback between teacher-education institutions and school-level stakeholders may help improve alignment between graduate preparation and the competencies required in contemporary classroom settings.

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Bridging the Gap: Higher Education and Graduate Employability in Zanzibar

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Abstract

University graduates in Zanzibar face employability challenges due to a discrepancy between the skills imparted by higher education and the needs of the labour market. This study explores the relevance of higher education to graduate employability. Using a descriptive design and a mixed-methods approach, data were collected from 342 respondents across three universities and analysed using descriptive statistics with Microsoft Excel and the Statistical Package for the Social Sciences (SPSS). The study found that while graduates perceive higher education as contributing to employability, they often remain unemployable in both formal and informal settings. The main issue observed is the lack of relevant skills and practical experience in university curricula, which restricts graduates' adaptability to labour market demands. To address this, the study recommends that higher education institutions review their curricula to better align practical and theoretical knowledge. Such changes would enhance graduates' readiness for the labour market and increase their employability in dynamic professional environments.

Keywords: *Labour market, graduate employability, higher education*

Introduction

Concern over higher education and employability is intensifying, driven by the growing number of unemployable graduates, a trend influenced by advances in the education sector and the evolving demands of the job market (Nalawade et al., 2024). Individuals, families, and nations invest in education, expecting graduates to secure meaningful work. The skills, knowledge, and attributes cultivated through education play a critical role in shaping employment outcomes. Graduate employment rates are frequently used to assess how well educational programmes align with job market

demands and facilitate workforce integration (Ma'dan et al., 2020). The employability of higher education graduates is influenced by a wide range of factors, including those connected to society, the educational system, and the individual (Guo, 2024).

Universities are among higher education institutions responsible for equipping graduates with knowledge and the skills necessary for employability (Gauthier, 2018). The concept of employability refers to the ability of university graduates to be employed or self-employed (Azmi et al., 2018). *University graduates, therefore, are expected to possess certain skills and competencies that can determine their employability status (William et al., 2018).*

Globally, the issue of graduate employability has been addressed through various policies and strategies to strengthen the relationship between higher education and labour market needs (UNESCO, 2022). In Asia, labour market reforms and university curriculum adjustments have been introduced to ensure graduates acquire employable skills (Marklund et al., 2017). In New Zealand, incorporating work placements and internships into tertiary qualifications for international students has become a central element of government efforts to enhance graduates' employability and improve pathways to employment and residency (Education New Zealand, 2015). However, graduate unemployment remains a global challenge. In Europe, Greece recorded one of the highest graduate unemployment rates at 15.7%, followed by Finland (4.9%), Belgium (3.8%), and the United Kingdom (2.3%) (Reboot, 2019). Similarly, in Malaysia, approximately 53,373 graduates from higher education institutions were reported unemployed, contributing to about 3.5% of the country's total unemployment rate (Ma'dan et al., 2020).

In Africa, graduate unemployment remains a major development challenge despite numerous interventions. In South Africa, university graduates continue to experience high unemployment because many fail to secure jobs that match their qualifications (Ramoroka et al., 2024). Kenya has also struggled with graduate unemployment despite implementing the Development Sector Plan for Labour, Youth and Human Resource Development (2008–2012) (UN, 2021). In Tanzania, including Zanzibar, several poverty reduction strategies and youth employment policies have been introduced to improve graduate employability and reduce unemployment (URT, 2023). However, the gap between educational outcomes and labour market expectations remains significant, making graduate unemployment a major barrier to poverty reduction and economic growth.

In Zanzibar, graduate unemployment persists despite the continued expansion of higher education and various policy efforts to improve employability. According to the Office of the Chief Government Statistician (OCGS, 2020), unemployment among graduates increased by 11.3% between 2018 and 2020, indicating that many graduates are still unable to transition successfully from university to sustainable employment. Despite ongoing initiatives to strengthen employability competencies, many graduates struggle to convert their academic qualifications into stable career opportunities. This situation suggests a mismatch between the skills and knowledge provided by higher education institutions and the actual demands of the labour market. As a result, many graduates remain unemployed, underemployed, or engaged in temporary and part-time jobs that do not fully utilise their qualifications and potential. Such scenarios highlight inefficiencies in aligning education and career development initiatives with the broader goal of enhancing graduate employability (Sophia & Onen, 2024).

The persistently low levels of graduate employability in Zanzibar, despite various initiatives such as curriculum reform, Support for Self-Employment and Entrepreneurship aimed at improving it, highlight the need for this study. Previous studies on employability have largely focused on skill mismatches between graduates and labour market demands, but they have not fully addressed Zanzibar's unique socioeconomic conditions and employment realities. For instance, Kalufya and Mwakajinga (2016) found that employers frequently failed to distinguish between university graduates and non-graduates based on skills and knowledge, indicating weaknesses in the development of employability-related competencies within higher education institutions. However, their research, like many others, focused narrowly on formal employment as an outcome, overlooking key dimensions of employability, such as self-employment, entrepreneurial skills, and other adaptable competencies necessary for success across varied work environments.

Similarly, Kibona (2024) found that the influence of higher education on graduate employability is shaped by the region's unique socio-economic conditions, particularly the mismatch between university training and labour market expectations. In addition, Mseleku (2024) found that although internships contribute slightly to career and professional development, their role in facilitating graduates' transition into full-time, permanent employment remains unclear, as they mainly provide soft skills and limited relevant work experience that do not adequately meet employability needs. Therefore, there remains a gap in understanding of how higher education influences graduate employability in Zanzibar beyond formal employment, particularly regarding entrepreneurship, self-employment, and the local labour market.

Despite the increase in higher education graduation rates between 2018 and 2023, Zanzibar continues to experience high levels of graduate youth unemployment. Employers have raised concerns about skills gaps among university graduates, particularly in technical competence, communication, problem-solving, teamwork, adaptability, leadership, entrepreneurial skills, digital literacy, and professionalism. These concerns raise critical questions about whether higher education institutions (HEIs) are adequately preparing graduates with the knowledge, skills, and competencies required for employability. Given this, there is a need to examine the reality of these perceived skills gaps and to identify institutional challenges within HEIs, including curriculum misalignment with labour market demands and limited career development support (OCGS, 2020). The study therefore explores the influence of higher education and graduate employability in Zanzibar within the context of Job Match theory, which examines the extent to which academic programmes correspond with labour market needs and how this alignment or disparity influences graduates' employment outcomes.

The main objective of this study was to examine the influence of higher education on graduate employability in Zanzibar. Specifically, the study assessed graduates' career expectations and employment trends, curriculum alignment with labour market demands, and institutional factors affecting employability.

Theoretical Review

This study was guided by the Job Match Theory. The theory states that "A worker's productivity in a particular job is not known ex-ante but becomes known more precisely as the worker's job tenure increases" (Jovanovic, 1979). According to the theory, the labour market operates as a matching process where employers seek workers and job seekers search for employers until both find an optimal match. The theory emphasises that this matching process depends on aligning job seekers' skills and attributes with employers' specific demands. In support of this, Heriel (2025) found that graduate unemployment is strongly associated with skills mismatch, indicating that a substantial proportion of unemployment can be attributed to the misalignment between graduates' competencies and labour market demands.

In the context of this study, the Job Match Theory is particularly relevant as it highlights the importance of ensuring that higher education aligns with the labour market demands. A mismatch between the skills imparted by universities and the requirements of the labour market could lead to unemployment among graduates. As Robst (2007) suggests, graduates' employability is compromised when their education does not adequately consider the evolving needs of the global economy.

This theory serves as a guiding framework for the study by providing a lens through which to analyse the influence of higher education on graduate employability in Zanzibar. It informs the investigation into whether higher education institutions in Zanzibar are effectively equipping students with skills that match the demands of the labour market, thereby facilitating better job matches and reducing unemployment. By applying the Job Match Theory, the study sought to test its applicability in the Zanzibar context and provide insights to improve the alignment between higher education curricula and labour market requirements. It also helps explain why some graduates remain unemployed or end up in jobs that do not match their qualifications, despite completing higher education.

Empirical review

The relevance of higher education to graduate employability

Empirical evidence globally emphasises the increasing relevance of higher education in shaping graduate employability in a rapidly changing labour market. UNESCO (2022) emphasises that higher education plays a central role in equipping graduates with transferable skills such as adaptability, critical thinking, innovation, and digital literacy, which are essential for employability in a competitive global economy. This reflects a shift from traditional knowledge-based education to competency-based learning aimed at improving graduates' readiness for work.

Countries like Germany and South Korea have successfully bridged the gap between learning and employment by ensuring their universities work closely with industry. These countries have developed systems where students gain hands-on experience through internships and apprenticeship programmes, making them more employable immediately after graduation (OECD, 2022).

In contrast, the study conducted in Malaysia by Fernández-Suárez et al. (2016) indicates that HE institutions contribute little to enhancing graduate employability. The study concluded that there was a need to prepare students for the world of work with a focus on both local and international employment opportunities. The findings further indicated that some university graduates lacked techniques to prepare and present a curriculum vitae and respond to interviews. This was attributed to the fact that some HE institutions focus more on theories and paper-based examination results than on developing competencies. Another study conducted in Bangladesh reported that the majority of HE graduates remain unemployed because they lack confidence, rely on memorisation, and lack soft skills (Fahim, Majumder, Faruk, & Sutradhar, 2018).

In Sub-Saharan Africa, the relevance of higher education to employability is further challenged by persistent skills mismatch. The World Bank (2022) indicates that although millions of graduates enter the labour market annually, many struggle to secure employment due to weak alignment between university training and labour market needs. The African Development Bank (2021) similarly attributes graduate unemployment to outdated curricula, limited practical training, and weak collaboration between universities and employers. In Nigeria, Omoniwa and Adedapo (2017) found that although graduates possess theoretical knowledge, they often lack practical experience and relevant competencies required by employers. Oketch (2020) further argues that many African higher education systems remain largely theory-driven, limiting the development of essential employability skills such as problem-solving and digital literacy.

In Tanzania, Mwita (2018) conducted a study on employability in the Dodoma region and found that employers believe higher education institutions do not adequately equip graduates with the practical skills and competencies required in the job market. Mwita insisted that the mismatch can occur because educational systems may not align with the rapidly changing labour market demands in technology-driven fields. The employability situation Mwita discussed can vary widely depending on socio-economic conditions, particularly across contexts such as developed versus rural areas or different cultural settings. This diversity affects graduates' ability to secure employment. In economically advanced regions with high-quality education and employment systems, graduates tend to fare better, whereas in less developed areas, the lack of institutional support and economic opportunities may hinder employability.

In Zanzibar, the situation becomes even more urgent. Even though more students are joining university than ever before, many graduates are still unemployed. A study by Kibona (2023) shows that in Zanzibar, this is largely due to university programmes not being closely linked to the local economy. Students often graduate with degrees in fields such as general arts or humanities, while the growing sectors in Zanzibar, such as tourism, ICT, marine science, and blue economy-related industries, are in dire need of specialised skills.

The Zanzibar Labour Force Survey (OCGS, 2020) found that nearly 30% of graduates were unemployed a year after graduating from university. This shows a clear disconnect between education and the job market. The problem is made worse by the fact that most universities in Zanzibar lack strong internship or industrial training programmes. Kessy (2020) found that very

few students gain real-world work experience before they graduate, leaving them unprepared for employer expectations.

Efforts to address this issue remain limited. Zanzibar's education policies have begun to identify the problem. The Zanzibar Education Policy (2019) and Development Vision 2050 discuss linking education to national priorities such as the blue economy, ICT, and youth entrepreneurship. But universities are often slow to update their curricula or work together with employers. COSTECH (2024) points out that, although data on employment trends exist, universities do not use it enough when designing programmes. As a result, students often seem to be academically qualified but not employable.

Research Gap

The existing studies (Kibona, 2023; Kessy, 2020; OCGS, 2020) have focused on the existence of unemployment and mismatch between education and labour market needs. These studies remain descriptive, focusing on the problem rather than systematically analysing the influence of higher education variables on employability outcomes, including both formal employment and self-employment. Consequently, these studies do not adequately explain how and to what extent higher education influences graduate employability in Zanzibar. This study addresses this gap by empirically examining how institutional factors contribute to the production of graduates who are either employable or mismatched with labour market demands.

Methodology

Research Approach

The study employed a mixed-methods research approach. This approach represents a research approach that involves collecting, analysing and interpreting both quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon (Bentahar & Cameron, 2015). A mixed-methods approach provides a better understanding of research problems and research questions and more evidence, while offsetting possible shortcomings from using a single approach (Cohen et al., 2018).

Research Design

The study used a descriptive research design because it is suitable for examining how higher education institutions influence graduate employability outcomes, including skills acquisition, job readiness, and self-employment tendencies (Tsai, 2021). This design enabled the researcher to obtain factual information from graduates and university administrators regarding their experiences, perceptions, and real-life conditions within the

existing educational and labour market context. A descriptive research design is intended to observe, describe, and record the characteristics of a phenomenon as it naturally occurs (Shinija, 2024).

Selection of the Research Sites

This study was conducted at three universities in Zanzibar, Tanzania. Zanzibar was selected as the study location due to its distinct economic characteristics, thus making it a significant focus for understanding graduate employability patterns. The region's reliance on formal employment opportunities over self-employment or entrepreneurship has contributed to high unemployment rates among university graduates. Specifically, SUZA (State University of Zanzibar), the largest public university, contributed a significant share of graduates across various fields. Zanzibar University (ZU), a leading private institution, was included for its focus on business and management studies, areas critical to employability. Lastly, Sumait University was chosen for its prominence in producing graduates in education and related disciplines. Additionally, Zanzibar consistently reports elevated levels of graduate employability challenges, aligning with national trends. The region also hosts various programmes addressing these challenges, further underscoring its relevance as a case study (UNICEF, 2018).

Sampling Procedure

The sample estimated was 384 respondents, including finalist students and graduates. The sample size was determined using Yamane's (1967) formula (equation 1) for calculating sample sizes in social research, thereby ensuring an appropriate balance between statistical power and resource availability.

$$n = \frac{N}{1+N(e)^2} \dots\dots\dots 1$$

Where:

n = Sample size

N = Total population (which includes all three universities, including finalists and alumni)

e = Marginal error of 0.05 (when the level of accuracy is 95%)

$$n = \frac{9800}{1 + 9800(0.05)^2}$$

$$n = \frac{9800}{1 + 9800(0.0025)}$$

$$n = \frac{9800}{1 + 24.5}$$

$$n = \frac{9800}{25.5}$$
$$n = 384$$

The study population comprised 9,800 individuals across the three universities. The study planned to collect data from a sample of 384 respondents (100%), selected through simple random sampling based on Yamane's (1967) sample size determination formula. Data collection involved distributing questionnaires to respondents in the selected universities, public and private organizations, and their residences. In this case, a total of 342 questionnaires, equivalent to 89% of the total, were successfully received with complete responses, while only 42, equivalent to 11%, were not returned. The risk of non-response bias is considered minimal, as although 11% of the disseminated questionnaires were not returned. The non-response rate of 11% is considered relatively low and falls within the acceptable range for most social science research, suggesting that the risk of non-response bias is minimal. To further minimize this risk, follow-up visits and reminders were made to respondents at the participating universities and organizations.

In addition, the possibility of non-response bias was assessed by comparing early and late respondents, a commonly used approach for detecting potential bias. No statistically significant differences were observed between the two groups on the key study variables, indicating that non-respondents were unlikely to differ systematically from respondents. Therefore, non-response bias was considered minimal, and the findings are regarded as representative of the target population, thereby enhancing the validity and generalisability of the study.

Key informants were purposively selected for their roles and expertise in higher education, employability, and the labour market. They included university administrators, such as 3 heads of departments who gave insights into curriculum development, career support services, and the employability of graduates. 2 employers representing private and public organisations that hire graduates were chosen to reflect diverse sectors relevant to Zanzibar's economy, and a director from the Ministry responsible for Youth was also included. They were selected for their knowledge of education policies and labour market trends. Despite the relatively small number of informants, saturation has been reached, as responses began to repeat similar ideas regarding graduate employability, skills gaps, and institutional challenges. Therefore, the sample size was deemed sufficient for achieving depth of understanding rather than statistical generalisation (McLeod, 2024).

Data Collection Methods

Data collection involved both quantitative and qualitative methods. Quantitative methods included structured questionnaires with a Likert scale: 5 =Excellent, 4= Very Good, 3 = Good, 2 = Poor, 1= Very Poor. The questionnaire was administered by the researcher, who requested that respondents complete the questions under the researcher's guidance to allow clarification of any questions or terms before returning it to the researcher. The questionnaire consisted of closed and open-ended questions and was administered to both finalists and alumni. The same questionnaire was used for both alumni and finalists for comparative analysis.

The key variables assessed included graduate expectations, alignment of the academic programmes with the labour market demands, and satisfaction with the learning environment during their studies. To ensure reliability and validity, the questionnaires were pretested, and data collection methods were reviewed and refined based on feedback from experts and pilot testing. Pre-testing of the questionnaires was conducted with 30 respondents to evaluate their phrasing, appropriateness, flow, and ability to capture the time required to complete the survey. A few unclear questions were eliminated, while some were rephrased. Following revision, a duplicate of the questionnaire was prepared for use in the survey.

Qualitative data were collected through semi-structured interviews, using an interview guide to gather information from key informants. The semi-structured interview provided opportunities for the researchers to explore the challenges faced by universities in aligning education with labour market needs, employers' perspectives on graduates' competencies, and policy-level interventions aimed at enhancing graduate employability (Fox, 2009). The interview questions also addressed employment application trends among graduates from various departments, including bachelor's degrees in Information and Communication Technology (BSCICT), Accounting and Finance (BAF), and Education (BAED). The information was sourced from the President's Office, Constitution, Legal Affairs, Public Services, and Good Governance. This is the Ministry responsible for recruitment in the government sector, as it authorises employment and maintains records on government employment. The use of multiple data collection methods, such as interviews and questionnaires, enabled triangulation of the findings, thus enhancing the credibility of the results.

Data Analysis

Quantitative data were analysed using descriptive statistical methods to summarise and interpret the findings. Frequencies and percentages were calculated to represent the distribution of responses across variables, thereby

providing a clear overview of the data. A weighted mean score was computed for the responses collected through the Likert scale, as described by Adeniran (2019) and summarised in Equation 2. The weighted mean captured the participants' overall perceptions and levels of agreement on various aspects of employability, such as the relevance of academic programmes, graduate skills, and their alignment with labour market demands. This analytical approach ensured that the results were presented in a structured and interpretable manner, hence contributing to a comprehensive understanding of the data. Qualitative data were analysed using content analysis, in which information obtained from interviews with key informants was carefully organised, coded, and grouped into themes aligned with the study objectives (McLeod, 2024).

$$M_w = \frac{(\sum f_i \cdot w_i)}{\sum f_i} \dots\dots\dots (2)$$

Where:

- Mw = Weighted mean score
- Fi = Frequency for respective Likert scale
- Wi = Weight in Likert scale

Ethical Considerations

Ethical considerations are vital for maintaining the integrity, credibility, and trustworthiness of the study (Cameron & Herrmann, 2023). To ensure this, the researcher adhered to several ethical principles throughout the research process. First, the study protected respondents' anonymity by omitting personal identifiers, such as names or specific job titles, from the research report. To preserve the depth and richness of participants' responses, especially in qualitative interviews, pseudonyms were used to maintain participants' confidentiality. Second, informed consent was obtained from all respondents before data collection began. Participants were clearly informed about the purpose of the study, the nature of their involvement, and their right to withdraw at any stage without negative consequences. Finally, responsible data integration was maintained by ensuring that both quantitative and qualitative data were handled objectively and interpreted fairly. All collected data were securely stored and used strictly for academic purposes only.

Findings and Discussion

Characteristics of the Respondents

Respondents' characteristics based on sex, age, graduation status and discipline of studies are presented in Table1 and discussed in the next sections. These characteristics were selected based on their influence on employability, as reported by other researchers, such as Segbenya et al.

(2023). Also, using the selected respondent characteristics, helps assess how well findings relate to a wider population.

Table 1:
Characteristics of the respondents

Characteristics	Variable	Responses (%)	ZU n=100	SUMAIT n=42	TOTAL
		SUZA n=200			
Sex	Male	41	55	24	43
	Female	59	45	76	57
Age (years)	18-29	84	62	64	75
	30-39	15	33	33	22
	40-49	1	5	3	3
Categories	Finalist	24.5	37	52.4	31
Discipline	Graduate	75.5	63	47.6	69
	Business	35	30	0	29
	Science	40	45	42.9	42
	Arts	25	25	57.1	29

Sex Distribution

The results indicate that more than half (57%) of the respondents were female, reflecting increased participation of women in higher education, particularly in arts disciplines. However, these fields have limited opportunities for formal employment, particularly in the government sector. If the curricula do not focus on employability skills such as digital literacy and entrepreneurship, female graduates may face higher unemployment rates. Adapting curricula to provide diverse, marketable skills is essential to enhancing female graduates' employability and broadening their career options beyond oversaturated fields. These results are consistent with the Tanzania Commission for Universities (TCU) reports on enrolment in higher education institutions, which indicate higher enrolment of female students in universities of Zanzibar (Tanzania Commission for Universities, 2018).

Age Distribution

75% of the respondents were aged 18–29 years, the most active segment of the labour force. This age group's preparation for the workforce is crucial, as a mismatch between education and labour market needs could lead to high levels of underemployment and frustration. If graduates lack relevant skills, they may depend on family or government support, thus straining social systems and hindering economic growth. Ensuring this age group is equipped with the right skills is key to preventing these issues. This result is quite similar to the study conducted by European Commission & Eurydice (2024), which gives a thorough summary of the achievements and difficulties encountered in carrying out the promises made in the Bologna Process in

each of the 49 member nations of the European Higher Education Area (EHEA) and it was observed that, the most dominant age group for higher education, students between the ages of 18 and 34, saw notable shifts in their university enrolment rates between the academic years 2015–2016 and 2020–2021.

Graduation Status and Disciplines

The results show that the majority (69%) of the respondents were graduates, with 42% from science and 29% from arts and business disciplines. The variation in disciplines across universities highlights the need to ensure that all graduates acquire employability skills. It should be noted that although science graduates often possess technical skills that meet industry needs, arts and business graduates may require additional practical training and entrepreneurial education to enhance their employability. Therefore, adjusting curricula to address these gaps is vital for improving employability (The Business Standard, 2024).

These findings emphasise the need for higher education to align with labour market demands. This ensures graduates are equipped with the technical, soft, and entrepreneurial skills essential for successful entry into the workforce. Without these, Zanzibar could face widespread underemployment and economic strain. Curriculum reforms, career guidance, and entrepreneurship initiatives are necessary to help graduates, especially in underrepresented fields such as the arts and business. Thus, they become more employable and contribute to economic growth.

Graduates' Expectations from Higher Education

The results on graduates' expectations after graduation are presented in Table 2. The results reveal a significant disconnect between graduates' career expectations and their employability. A majority (63%) expected government employment, with SUMAIT leading at 71.4%, followed by SUZA (66%) and ZU (53.3%). This reliance on public sector jobs reflects a limited perception of alternative career pathways. It suggests that curricula may not adequately equip graduates with the versatile skills needed for emerging opportunities in the private sector or for entrepreneurship. Conversely, only 12.2% of the graduates anticipated private-sector employment, highlighting gaps in critical employability skills such as adaptability, communication, and digital literacy, as well as limited exposure to private-sector opportunities. On the other hand, during an interview with a director from the office of the head of NGOs, it was quoted;

The majority of recent graduates don't want to work in the private sector; they merely apply for employment to obtain experience. Graduates see positions in

the private sector as short-term opportunities to gain experience. Jobs in the public sector or chances abroad can be preferred (10 October 2024)

While graduates are unwilling to work in the private sector, employers are reluctant to hire them because they lack experience in speaking English fluently in the workplace, as quoted from NGO officers.

In the workplace, many recent graduates are uncomfortable speaking English, which frequently results in inadequate communication abilities. The most common causes of this hesitancy are a lack of confidence, a fear of making mistakes, or a lack of experience speaking English in real-world situations. Even though they may have taken English courses in college, they frequently lack the practice necessary to communicate effectively and professionally. (10 October 2024)

Self-employment, anticipated by 17.2% of graduates, emerged as the second most expected pathway, with ZU leading at 20.8% and SUMAIT lagging at 7.1%. This disparity indicates varying levels of entrepreneurial preparation across institutions, as well as systemic barriers such as limited access to capital and insufficient training. Furthermore, only 7.6% of the graduates envisioned creating employment opportunities, signalling a critical gap in fostering entrepreneurial mindsets and innovation. To address these challenges, higher education institutions must realign their curricula to emphasise transferable skills, entrepreneurial competencies, and private-sector readiness. Such reforms would enhance graduate employability, diversify career pathways, and reduce dependence on the constrained public sector.

These findings align with scholarly insights on employability and graduates' occupational choices. A majority of graduates (63%) reported expecting government employment, reflecting a limited perspective on career pathways and aligning with Pauceanu et al. (2018), who argued that graduates often prefer salaried positions over self-employment due to motivations, awareness, and perceived stability. This preference for public sector jobs may also stem from graduates' expectations of engaging in activities aligned with their professional development and technological adaptation, as highlighted by Işık (2022).

Self-employment, as anticipated by 17.2% of the graduates, mirrors findings from Abreu et al. (2019) and Fini et al. (2022), who identified financial constraints and a lack of business experience as key barriers preventing graduates from initiating their ventures. The low percentage of graduates (7.6%) who envision themselves as employment creators highlights a critical gap in fostering entrepreneurial mindsets and innovation, as emphasised by

Abualoush et al. (2022), who advocated equipping graduates with analytical, problem-solving, and communication skills. Additionally, Kurczewska et al. (2020) noted that graduates' career decisions, including their reluctance to start businesses, may be influenced by geographic and socioeconomic factors. Therefore, aligning the curricula to develop transferable skills, entrepreneurial competencies, and adaptability is vital for addressing these gaps and enhancing graduates' employability across diverse labour market sectors.

Table 2:
Graduates' Expectations from Higher Education

Expected employer	Graduates (%)			
	SUZA (n = 200)	ZU (n = 100)	SUMAIT (n = 42)	Total (N=342)
Government	66	53	71.4	63
Self-employed	17.5	21	7.1	17.3
Private organisation	8	18	19	12.3
Creation of employment	8.5	8	2.4	7.6

Graduates' Employment Trends

The results on the employment trend for the past five years (2018-2022) are presented in Figures 1, 2 and 3. These results reveal a notable gap between the number of job applications and actual employment, which may indicate broader employability concerns, particularly in the government sector.

The findings on the employment trend for Bachelor of Science in ICT graduates (Figure 1) show a marked decline in the number of employed graduates, from 180 in 2018 to just 7 in 2022, with applications also decreasing significantly from 2020 onwards. A large number of ICT experts might not be absorbed by Zanzibar's very small economy and limited number of ICT enterprises, particularly if most opportunities are concentrated in mainland Tanzania or overseas. Potential graduates may lose interest in applying if employment prospects deteriorate, fearing a poor return on investment. Growing recognition of this mismatch may explain the decline in submissions after 2020.

For Bachelor of Accounting and Finance graduates (Figure 2), employment figures started low at 22 in 2018 and fell to zero by 2021, with applications showing a similar decline. The decline in employment and applications is due to the limited number of job opportunities in the government sector and, in part, to the inadequacy of graduates' skills in meeting industry expectations. Employment trends for Bachelor of Arts in Education graduates (Figure 3) show a consistently large gap between the number of job applications and the

number of employed graduates, except in 2021, when there were no employment opportunities. This discrepancy between job applications and the actual graduates employed reflects a decrease in demand for education graduates, while the supply side increases.

Taken together, these results suggest an important trend: graduates' expectations may not align with actual employment outcomes, signalling a potential gap between the skills graduates acquire and the opportunities available in the labour market for formal employment. This disconnection highlights a need for further research into how higher education institutions can better prepare graduates for a changing employment landscape. This result correlates with other findings in Africa. This is because, according to Daniel and Precious (2021), between 10 and 12 million young people enter the labour market each year, yet only 3 million formal jobs are available in African countries.

Figure 1:
Employment trends for the five years for Bachelor of Science in ICT

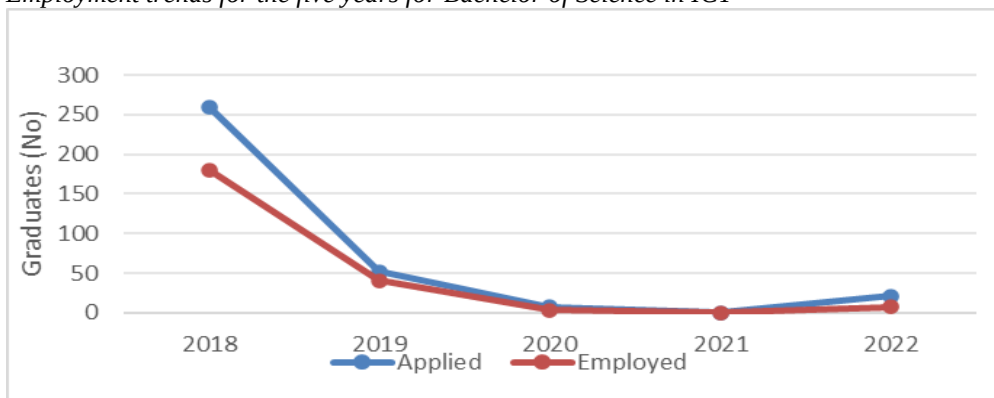


Figure 2:
Employment trends for the five years for Bachelor of Accounting and Finance

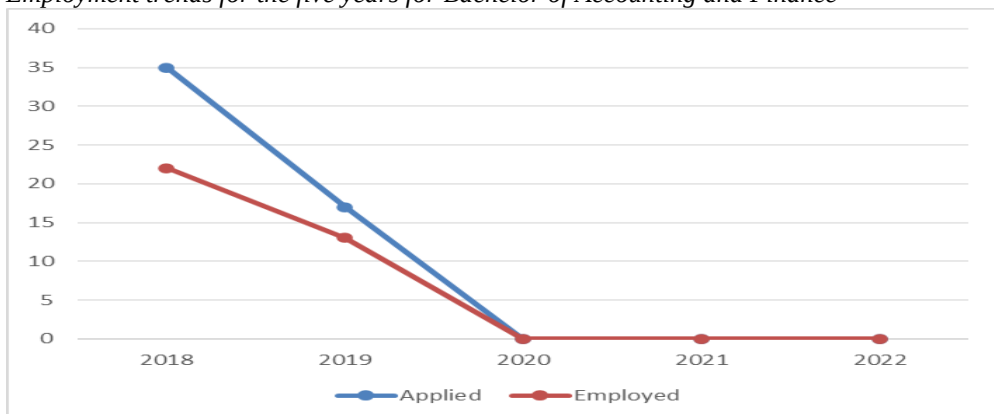
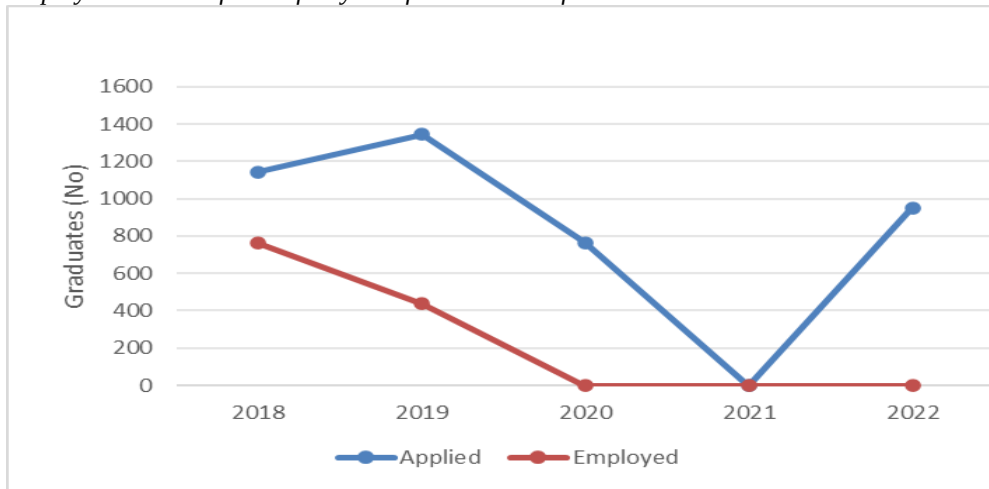


Figure 3:

Employment trends for the five years for Bachelor of Arts in Education



Gaps for Graduate Employability

The results demonstrate an employability gap across the three programmes, Bachelor of Science in Information and Communication Technology (BSCICT), Bachelor of Accounting and Finance (BAF), and Bachelor of Arts in Education (BAED), as reflected by the difference between the number of graduates applying for jobs and those successfully employed. For instance, in the BSCICT programme, about 270 graduates applied for employment in 2018, while only 180 secured jobs, leaving an employability gap of approximately 90 graduates. In 2019, the gap narrowed to about 20 graduates, with 80 applicants and 60 employed, and in 2020, the gap remained at around 10 graduates. This trend suggests a gradual improvement in employability outcomes among ICT graduates compared to the other programmes. Generally, graduate unemployment in Zanzibar is caused by a combination of inadequate job generation and skills mismatches. However, a sustainable way to increase graduate employability is to align university curricula with labour market demands through industry partnership, curriculum reform, and entrepreneurial support.

Employers provided valuable insights into employability gaps among graduates, highlighting specific areas of concern. These gaps are interconnected and reflect both personal and professional development challenges that hinder the graduates' readiness for the job market. The next sections present and discuss the gaps identified by employers.

Lack of Confidence

A recurring theme among employers was the lack of confidence graduates exhibited upon entering the workforce. In this regard, confidence plays a

critical role in working effectively and engaging with colleagues. In this regard, one employer remarked:

The current graduates seem hesitant to take initiatives. This affects their ability to contribute meaningfully to workplace projects. (10 October 2024)

This hesitation often limits the graduates' ability to take on responsibilities or showcase their potential in professional settings. Similarly, Fahim, Majumder, Faruk, and Sutrandhar (2018) found that many higher education graduates in Bangladesh remained unemployed due to a lack of confidence, overreliance on memorisation, and inadequate soft skills.

Poor Communication Skills

Another notable gap identified was poor communication skills, encompassing both verbal and written forms. Effective communication is essential for teamwork, problem-solving, and organisational success, yet many graduates struggle in this area. In connection with this, one employer explained,

Most graduates struggle to articulate their ideas clearly in presentations or meetings, limiting their effectiveness in team environments. (10 October 2024)

This deficiency in communication skills not only affects individual performance but also hinders overall organisational efficiency.

Limited Competence in the Use of ICT Technologies

In an era driven by technology, proficiency in ICT tools is a critical requirement for most job roles. Employers, however, observed that many graduates lacked adequate ICT skills, thus necessitating additional training. In this regard, one employer commented:

We expect new employees to be proficient in common ICT tools, but many graduates need additional training, which delays productivity gains. (11 October 2024)

This gap underscores the importance of integrating practical ICT training into the academic curricula to better prepare students for the demands of modern workplaces.

Limited Skills and Practical Experience

Employers also emphasised the gap between academic knowledge and practical application, noting that graduates often lack hands-on experience. This discrepancy is particularly concerning in roles requiring immediate problem-solving and technical expertise. Reacting to this, one employer noted,

Graduates often have theoretical knowledge but struggle to apply it in practice, creating a skills gap in the workplace. Most graduates may find it difficult to meet workplace expectations, reducing their employability and making the transition from education to employment more challenging. (11 October 2024)

We infer that enhancing experiential learning opportunities, such as internships and fieldwork, could help bridge this gap by enabling graduates to apply theoretical knowledge in the real world.

Reluctance to Work with NGOs

Employers raised a specific concern about the graduates' unwillingness to work with non-governmental organisations (NGOs). This reluctance may stem from misconceptions about the sector or preferences for more traditional career paths. On this, one employer put it,

Graduates tend to overlook the NGO sector, either due to misconceptions about the work environment or preference for more conventional career paths." (11 October 2024)

Therefore, encouraging exposure to diverse career opportunities during education could help address this issue.

High-Salary Expectations

Lastly, employers identified unrealistic salary expectations as a barrier to employability. While salary aspirations are natural, many graduates appear to have inflated expectations not aligned with entry-level roles or their skill levels. In connection to this, one employer stated,

Many fresh graduates have inflated salary expectations that are not aligned with their skills or the market reality. (10 October 2024).

This issue highlights the need for career counselling and market-oriented guidance for students before graduation.

The findings of this study support the observations by Ping Yong and Ling (2023), who conducted a study in Malaysia and concluded that for graduates not to meet the employers' expectations in the workforce is a complex issue, often rooted in a combination of factors related to education, skill development, and the changing needs of the job market. In addition, Ndyali (2016) noted that a mismatch between what university graduates are taught and the needs of the labour market hinders the employability of university graduates. This finding provides insight into how educational institutions can collaborate more closely with industry to ensure that curricula align with the skills needed in the job market.

Quality and relevance of higher education

The quality and relevance of higher education were assessed based on the learning environment, curricula, and delivery. The findings of this assessment are presented and discussed below.

Learning Environment

The learning environment was assessed based on class size adequacy and the quality of facilities, including tables, chairs, and presentation equipment. The assessment used a Likert scale where 5 = Excellent, 4 = Very Good, 3 = Good, 2 = Poor, and 1 = Very Poor. The findings presented in Table 3 indicate that the overall learning environment was rated as good, with a mean score of 3.3. Class sizes were also rated as good, suggesting that students were generally satisfied with the available classroom space for learning. However, class size at SUMAIT was rated lower due to the relatively limited classroom space compared to the number of students, which affected comfort and active participation during lectures. The quality of furniture was rated as poor, with a mean score of 2.1 across all three universities, indicating the need for improvement. The low ratings for furniture quality, particularly at SUMAIT University, align with Agyapong and Glalah (2021), who highlight the importance of suitable furniture in enhancing student learning efficiency and academic outcomes.

Other facilities were ranked as good to very good, with few areas requiring improvement. No assessment was ranked excellent because of improvement requirements in each. For instance, although the internet and library services were ranked as good to very good, the discussion with the respondents indicated some occasional internet interruptions and limited access. These results align with the study by Lupyana et al. (2018) conducted in Tanzania, whose findings revealed that university students were neither satisfied nor dissatisfied with the library services and recommended certain improvements to enhance the efficiency of the learning process. State University of Zanzibar (SUZA) was generally ranked higher than other universities, thus indicating the government's efforts and investment made in education.

Table 3:
Quality of teaching and learning facilities

Item	Likert Scale rating (Score)			
	SUZA	ZU	SUMAIT	ALL
Classes sizes	3.9	3.4	2.6	3.3
Furniture Quality	2.7	2.4	1.2	2.1
Furniture Quantity	4.2	3.8	3.7	3.9
Presentation Facilities	3.5	3.5	3.6	3.5
Library Facilities	3.7	3.7	3.7	3.7
Internet Facilities	3.2	3.2	3.6	3.3
Overall	3.5	3.3	3.0	3.3

5 = Excellent; 4 = Very Good; 3 = Good; 2= Poor; 1 = Very Poor

Curricula and mode of delivery

Curricula for higher education were assessed based on the clarity of the programme's learning outcomes, course contents, the modes of delivery, the link between theoretical knowledge and practical application, the relevance of skills to the job market, the applicability of knowledge to professional roles, and the overall level of skills acquired by graduates. The findings on this assessment are presented in Table 4. The results reveal that university education was generally perceived as relevant across all three institutions, with respondents rating several dimensions between "good" and "very good." The clarity of learning outcomes received scores between 3.8 and 4.3, reflecting strong satisfaction with how the learning goals were articulated and their support for students' academic and professional development. Programme course content and mode of delivery were rated between 3.7 and 3.9, indicating that while the material and teaching methods were viewed positively, there was room for improvement to better align with students' needs and market demands. The link between theory and practical application had an overall average of 3.6, with ZU slightly lower at 3.4, signalling a need to enhance practical components in curricula to bridge gaps in employability skills.

The relevance of skills to the job market was rated 3.5, indicating a moderate level of satisfaction, although stronger alignment with industry expectations would be necessary. Knowledge relevance scored slightly higher at 3.6, hence reflecting the perceived applicability of the academic learning to professional contexts, yet underscoring the need for further industry-focused curricula. Similarly, the level of skills acquired also averaged 3.6, thus highlighting the importance of continued efforts to develop job-ready graduates.

Table 4: Perceived relevance of higher education

Criteria	Likert Scale rating (Score)			
	SUZA (n = 200)	ZU (n = 100)	SUMAIT (n = 42)	Overall (n = 342)
Clarity of learning Outcome	3.9	3.8	4.3	4
Programme course content	3.8	3.7	3.9	3.8
Mode of delivery	3.8	3.7	3.9	3.7
Link between theory and practical	3.6	3.4	4.0	3.6
Relevance of skills to job market	3.4	3.5	3.6	3.5
Relevance of the knowledge to the job market	3.5	3.5	3.8	3.6
Level of skills acquired	3.5	3.6	3.9	3.6

5 = Excellent; 4 = Very Good; 3 = Good; 2= Poor; 1 = Very Poor

The results from Table 4 indicate that the university education system is generally effective in preparing graduates for the employability path.

However, challenges persist in other areas because the university education system fails to equip students with the mindset to apply knowledge acquired from their studies in other areas, although at the time of the study it was considering to maximise compliance by introducing quality assurance standards to gauge the quality of graduates in terms of their academic capabilities. The interview between the researcher and the TCU officer on the relevance of university education on employability revealed the following:

A marketing survey is an important step recommended by TCU before introducing any programme to ensure compliance with graduate employability. This is one of the efforts TCU has been making to ensure that all programmes offered by higher education institutions are relevant to graduates' social and economic development (10 October 2024).

Based on these perspectives, the study suggests that there should be a specific programme to align with the rapidly changing labour market by offering mandatory courses that foster a growth mindset and flexibility, since students feel prepared by believing that the educational system is generally effective in preparing them for an employable path. However, the labour market demands more than just academic credentials. There is a lack of alignment between labour market demands and educational output, and curriculum and delivery methods have not kept pace with technological and economic advancements.

The results on the clarity of learning outcomes: programme learning outcomes need to be clear to enable learners to achieve the intended goals, as suggested by Simper (2018), who conducted a study in the United States and observed that well-articulated cognitive skills, such as critical thinking and communication, are crucial in achieving learning goals. The gaps between theory and practice noted in the current study align with Clarke's (2018) study in Australia, which highlighted the limited emphasis on practical learning and interpersonal skill development in higher education, both of which are essential for graduate employability. Similarly, the mismatch between skills imparted by universities and labour market demands echoes Ndyali's (2016) findings from a study conducted in Tanzania, which showed that graduates often lack competitive skills aligned with job market needs.

Furthermore, the moderate ratings for skills and knowledge relevant to the job market reflect the concerns of Succi and Canovi (2020) in Italy, who argued that programmes in many universities, particularly in developing countries, are incompatible with industry requirements. The insufficient focus on entrepreneurship and digital innovation (Ngoasong, 2018; Rashid et al., 2019) may also contribute to these gaps. Based on Ntale et al. (2020) and Zimu-Biyela (2019), who conducted a study across the African continent for curriculum reform in African higher education, it was noted that higher education in low-income countries has been struggling to adapt to

globalisation and that the curricula were contextualised to local environments, which was found to hinder the production of job-ready graduates. These findings underscore the importance of integrating practical experience, transferable skills, and industry collaboration into university curricula to better align with the evolving labour market.

Relationship between Job Match Theory and the study findings

According to the study's findings, there is a substantial skill gap between what graduates learn in school and what employers actually need. Graduates could, for example, have academic knowledge but lack practical skills such as English communication or job-specific technical competencies. The fundamental problem that Job Match Theory outlines is an inadequate fit between employee talents and job requirements, as reflected in this misalignment.

According to Job Match Theory, this mismatch may lead to poor employability conditions, in which graduates take positions below their level of education. Employability is negatively affected when a worker's preferences, credentials, and abilities do not align with the demands of open positions in the labour market. To address the mismatch, the theory proposes interventions to align education and employability by collaborating with industry to design curricula that reflect current and future labour market needs. Practical training, soft skills (like communication), and industry-specific competencies should be integrated into academic programmes.

Conclusion

The study concludes that there is a significant mismatch between graduates' career expectations and labour market realities, which contributes to graduate unemployment and limited employability. This reflects a significant disconnect between graduates' career expectations and the realities of the labour market, with many students overly reliant on the public sector and underprepared for private sector employment, self-employment, or entrepreneurial ventures. This mismatch emphasises the need for curriculum reform that prioritises versatile, industry-relevant skills such as adaptability, communication, digital literacy, and entrepreneurship. The study further concludes that this mismatch is largely driven by deficiencies in graduate readiness, particularly in communication skills, ICT competence, and practical workplace experience. These gaps limit graduates' ability to meet modern employers' expectations and highlight the need for higher education institutions to strengthen experiential, hands-on learning approaches.

The study also concludes that, while the overall learning environment in the selected universities is generally satisfactory, particularly regarding class sizes, there are still significant infrastructural challenges that need attention.

Recommendations

Regarding the findings from this study, the following recommendations are proposed to improve the alignment between higher education curricula and employability:

Universities should review their curricula to ensure they align with dynamic labour market demands. This includes integrating knowledge with industry-relevant content, such as digital literacy, problem-solving and employability skills, alongside relevant practical skills. The curricula should be designed with input from industry stakeholders to ensure that graduates acquire the practical competencies needed for employability.

To better prepare graduates for dynamic workplaces, universities must adopt interactive and flexible strategies for delivering curricula. Methods such as problem-based learning, case studies, internships, and apprenticeships should be integrated into the curriculum to promote adaptability, teamwork, and real-world application of knowledge.

Disparities in learning environments must be addressed to ensure that all students have equal access to facilities and opportunities necessary for learning and skill development. Investment in laboratories, computers, internet facilities, and other learning resources should be prioritised.

Given the challenges related to the availability of formal employment, higher education institutions should promote entrepreneurial skills and self-employment opportunities. Programmes should include courses focused on business creation, financial literacy, and access to capital, thereby empowering graduates to pursue entrepreneurship as a viable career path.

Author Contributions

We confirm that all named authors have read and approved the manuscript. All authors contributed to Conceptualisation, writing, methodology design, literature review, data analysis, data interpretation, proofreading, and editing of the manuscript.

Competing Interests

The author declares that there are no competing interests regarding this manuscript.

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Accessing comprehensive curriculum information from selected universities, including programme content, delivery methods, learning activities, and programme lengths, was a major challenge for me during my studies. Despite numerous attempts, this data remained largely unavailable, making it difficult to gain a thorough grasp of how university curricula align with employability requirements.

However, I am grateful for the accessible information and perspectives that helped shape this study. To further examine the gap between higher education and the Zanzibar labour market, I expect future research to benefit from easier access to information about academic programmes.

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Strategies for Strengthening School Quality Assurance Practices in Public Secondary Schools: Evidence from Dodoma City, Tanzania

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Abstract

School quality assurance is expected to raise the standard of teaching and learning, yet examination results in many Tanzanian public secondary schools remain weak. This study examined strategies to strengthen school quality assurance practices in public secondary schools in Dodoma City, Tanzania. Three subsidiary questions guided the inquiry: which strategies teachers consider most and least promising, what heads of schools apply or recommend at school level and what support they need from the city education office, and what improvements the city school quality assurance office considers necessary. The study followed Total Quality Management Theory and used a convergent parallel mixed-methods design within a pragmatist paradigm. Ninety-three respondents took part: 85 teachers completed a five-point Likert questionnaire, and 07 heads of schools and 01 City School Quality Assurance Officer were interviewed. Questionnaire data were analysed using frequencies, means and standard deviations; interview data were analysed thematically. Teachers rated increased funding highest ($M = 4.02$, $SD = 1.27$) and the use of digital tools lowest ($M = 3.67$, $SD = 1.33$), although every strategy attracted agreement from at least two-thirds of the sample. Inter-school collaboration produced the widest spread of opinion ($SD = 1.43$). Heads of schools prioritised staffing, ICT infrastructure and a culture of continuous improvement, and looked to the city education office for on-site capacity building. The quality assurance office identified budget expansion, timely communication of curriculum and policy changes, and follow-up on inspection reports as key priorities. The study concludes that the binding constraints on quality assurance in Dodoma City are resource-related rather than attitudinal, and recommends that school management institutionalise internal classroom observation with clear timetables and documented feedback loops.

Keywords: Academic Performance, School Quality Assurance, Quality Assurance Practices.

Introduction

School quality assurance refers to the systematic processes through which schools are held to defined educational standards and supported to improve on them (Joseph & Urio, 2025; Seniwoliba, 2014). In practice, it operates through a recognisable cluster of activities: accreditation and evaluation, performance monitoring and data collection, the setting of curriculum and teaching standards, stakeholder engagement, and internal audit and review (Ogunshe, 2016; Seniwoliba, 2014). Self-evaluation sits at the centre of that cluster. Through it, a school appraises its teaching quality, learner progress, leadership, and climate, and establishes where it is strong and where it needs support (Allais, 2017; Kigozi & On, 2020).

Curriculum monitoring forms a second cluster. Schools in Tanzania do not write the national curriculum; they implement it. Quality assurance therefore monitors the fidelity and appropriateness of that implementation: whether the syllabus is covered, whether teachers interpret it in ways suited to their learners, and whether assessment matches the stated competences (Gibson & Linn, 2005; Ishemo, 2021). Feedback from students, staff and parents, feeds into the same process and keeps it from hardening into a purely administrative exercise (Mursidi *et al.*, 2020; Pitsoe & Maila, 2014).

Where these practices function well, learning outcomes tend to follow. Regular assessment paired with targeted intervention has been associated with better teaching methods, stronger learner engagement and improved examination results in both primary and secondary settings (Katete, 2023; Makiya *et al.*, 2022). The effects extend to the school's adult community. Monitoring experienced as supportive rather than punitive has been linked to teacher job satisfaction, retention, and a more positive school climate (Niu *et al.*, 2022; Qingyan *et al.*, 2023).

Tanzania has invested substantially in this area. Successive sector plans have expanded access, distributed teaching and learning materials, recruited teachers and financed classrooms and laboratories (United Republic of Tanzania-URT, 2022). A dedicated School Quality Assurance Department monitors school-level activity, on the reasoning that well-managed resources and procedures will deliver the intended educational outcomes (Phillymon, 2020). Nevertheless, performance in secondary education remains uneven, and the gap is widest in schools serving poorer communities (Makiya *et al.*, 2023; National Examination Council of Tanzania-NECTA, 2023). Limited teaching and learning resources, overcrowded classrooms, the language of instruction, and weak parental support are among the most commonly cited explanations (Medard & Mwila, 2022; Phillymon, 2020).

The problem addressed here is narrower than that national picture. Tanzanian research has documented what school quality assurance officers do and, in several cases, why implementation falls short of policy intent (Kassim *et al.*, 2024; Mbuya & Amos, 2024; Medard & Mwila, 2022). Much less is known about what system operators would change. Dodoma City is a useful case in this respect. A single city office coordinates quality assurance for its public secondary schools, and school-level accounts point to irregular visits, delayed feedback, and limited follow-up once inspection findings are issued (Medard & Mwila, 2022). When practices are already strained, prescribing more of the same is unlikely to help. Evidence is needed first on which strategies teachers, heads of schools, and quality assurance officials in that setting judge capable of strengthening what already exists. Without such evidence, improvement efforts risk being designed around assumptions rather than around the constraints practitioners actually face.

The study aimed to examine strategies for strengthening school quality assurance practices in public secondary schools in Dodoma City, Tanzania. Three subsidiary questions were addressed:

- i) Which strategies do teachers consider most and least likely to strengthen quality assurance practices in their schools?
- ii) What strategies do heads of schools apply or recommend at school level, and what support do they require from the city education office?
- iii) What improvements does the city school quality assurance office consider necessary, including in its support to schools that struggle to meet quality standards?

Literature Review

Quality Assurance and Quality Assurance Practices

Quality assurance is the set of systematic procedures and policies through which an education system establishes that provision meets agreed standards and satisfies stakeholder expectations (Pitsoe & Maila, 2014; Seniwoliba, 2014). It serves two purposes in some tension: accountability to funders, regulators, and the public, and continuous improvement of teaching, learning, and administration (Ishemo, 2021; Odukoya, 2025). Adherence to national and international standards underwrites institutional credibility, but the same standards can invite compliance behaviour if enforcement outweighs support. The literature distinguishes internal from external mechanisms. Internal quality assurance covers the self-assessment, monitoring and improvement work an institution conducts on itself, including performance appraisal, curriculum review and the collection of student feedback (Kigozi & On, 2020; Mbuya & Amos, 2024). External quality assurance includes inspection, accreditation, and audits by regulatory bodies that verify compliance with published benchmarks (Ogunshe, 2016). Both depend on stakeholder

participation. Odukoya (2025) and Mursidi *et al.* (2020) both argue that consistent quality management depends on aligning policy with the engagement of administrators, teachers, students, and policymakers, and that frequent policy change without corresponding communication undermines that consistency.

A terminological distinction matters for what follows. Quality assurance denotes the system and its governing policy. Quality assurance practices denote the observable activities through which that system operates in a particular school: the classroom observation, the scrutiny of lesson plans and schemes of work, the checking of syllabus coverage, the moderation of assessment, and the feedback and follow-up that should close the loop (Joseph & Urio, 2025; Kassim *et al.*, 2024). This study focuses on the second. It focuses on strategies that could improve practice, not on redesigning national policy.

Quality Assurance Practices and Academic Performance

Recent empirical work converges on a positive association between well-executed quality assurance practices and learner attainment, although the strength of the association varies by setting. Goshu *et al.* (2024) found that weaknesses in examination and monitoring arrangements in Ethiopian institutions translated directly into diminished learning quality. In Nigerian secondary schools, Shehu and Magaji (2024) reported that curriculum alignment with learning objectives, sound teaching methodology, varied assessment, and comprehensive learner support improved education quality and, with it, student attainment. Mumayyizah *et al.* (2024) reached a similar conclusion in Indonesian junior schools, where strategic planning, structured programme implementation, strict quality control, and continuous development distinguished higher-achieving schools.

Tanzanian evidence follows the same direction. Makiya *et al.* (2022) found that frequent school visits, follow-up visits, prompt release of feedback by quality assurance officers, the use of non-threatening language and professional development support were the strategies that improved learning achievement in Arusha primary schools; their later study confirmed the importance of the same criteria across a wider sample (Makiya *et al.*, 2023). Katete (2023) reported classroom observation to be the most common practice sustained across the academic year in government technical institutions, and linked it to improved teaching and administrative processes. Kassim *et al.* (2024) documented a comparable contribution to instructional practice in Zanzibar secondary schools. Working in Morogoro Municipality, Mbuya and Amos (2024) found that internal quality assurance practices were

constrained less by teacher attitude than by staffing shortages and the absence of dedicated internal quality assurance officers.

Two mediating factors recur. The first is teacher preparedness, which Damien and Claire (2022) found to be a strong correlate of learner performance in public secondary schools, and which Kumari and Pandey (2025) link to the availability of structured, continuing professional development rather than one-off training. The second is technology. Earlier work linked computers used for lesson planning and record-keeping to more effective curriculum implementation (Saeed, 2018), and Samuel and Farrer (2025) show that digital records shorten the interval between observation and feedback. Older comparative work on curriculum practice (Gibson & Linn, 2005) is retained here only for its account of how curriculum review was historically organised; the empirical claims in this section rest on studies published since 2018.

The literature does not settle which of these strategies practitioners in a given district would prioritise if they had to choose. Studies tend to establish that a practice matters, then recommend strengthening it, without asking those who operate it where the binding constraint lies. This study addresses that gap.

Theoretical Framework

The study was guided by Total Quality Management Theory, associated with the work of W. Edwards Deming from the 1950s onwards and concerned with continuous improvement across every part of an organisation through quality control, employee involvement and attention to those the organisation serves (Fatimah *et al.*, 2016). Five of its propositions directly relate to this study. Continuous improvement treats quality as an ongoing cycle of planning, doing, checking and acting rather than a periodic audit. Employee involvement holds that those who deliver a service should help design how it is monitored. Fact-based decision making requires that judgements rest on collected evidence. Process capability holds that a process can perform only as well as the staffing, funding, and infrastructure available to it allow. Benchmarking treats comparison with other units as a source of improvement (Brits, 2018; Evans & Lindsay, 2020; Kigozi & On, 2020).

Applied to schools, these propositions predict a particular pattern. When teachers participate in planning quality assurance activities, implementation fidelity should improve, and resistance should fall. Where monitoring generates usable data that is fed back promptly, instructional decisions should improve. Where the process is under-resourced, no amount of exhortation should compensate. Studies of Total Quality Management in education report gains in curriculum implementation, teacher performance and student

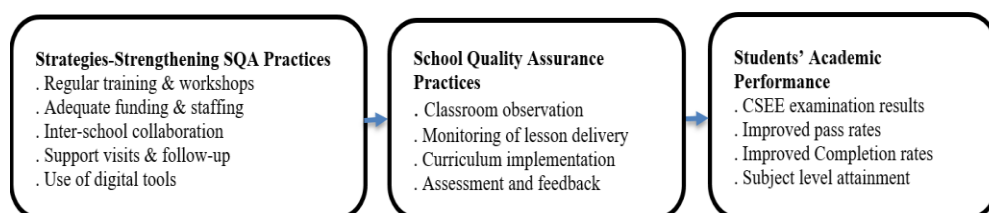
engagement when the propositions are implemented together rather than selectively (Cheng, 2022; Kassim *et al.*, 2024; Suna *et al.*, 2021).

One adaptation is necessary. Total Quality Management was developed for firms serving paying customers, and its customer-focus proposition does not transfer to schooling without qualification. Students are not purchasers of a service they can decline, and treating examination results as the sole measure of satisfaction narrows education to what is testable (Menteşoğulları, 2023; Yip, 2024). The framework is therefore used here in its process sense: it supplies a vocabulary for asking whether the school quality assurance process is adequately staffed, resourced, participatory and evidence-driven. It is not used to license a market reading of Tanzanian public education.

Conceptual Framework

Figure 1:

Conceptual framework: strategies, quality assurance practices and academic performance



Source: Adapted from Evans and Lindsay (2020) and Kigozi and On (2020).

Figure 1 sets out the relationships assumed in this study. Strategies for strengthening quality assurance, among them training, funding, teacher involvement in planning, digital tools and inter-school collaboration, are treated as the independent variable. They are expected to act on the quality of school quality assurance practices, which mediate the relationship: better-resourced and more participatory arrangements should produce more regular classroom observation, closer monitoring of lesson preparation and syllabus coverage, and sounder assessment. Students' academic performance, measured through examination results, pass rates and completion rates, is the dependent variable. Government support, resource availability, school leadership and teacher motivation are treated as intervening factors that may strengthen or dampen the relationship at either stage.

Methodology

Research Approach and Design

The study adopted a mixed methods approach within a pragmatist paradigm and used a convergent parallel design. The study collected quantitative and qualitative data in a single phase, analysed them separately, and then

compared them to determine whether the two strands supported or contradicted each other. The design suited the research questions because the strategies under investigation had to be measured across a body of teachers and, at the same time, explained by the small number of officials responsible for implementing them.

Population, Sample and Sampling Procedures

The target population comprised all 41 public secondary schools in Dodoma City, together with their 1,540 teachers, 41 heads of schools and the one education officer responsible for quality assurance (RAS, Dodoma Region, 2025). From this population, 93 respondents were drawn.

Table 1

Composition of the study sample (N = 93)

Category of respondent	Number	Sampling procedure/instrument
Teachers	85	Simple random / questionnaire
Heads of schools	7	Purposive / interview
City school quality assurance officer	1	Purposive / interview
Total	93	

Source: Field Data (2025).

Simple random sampling was used to select 85 teachers from seven public secondary schools, giving every teacher on the school registers an equal chance of selection and limiting selection bias. Purposive sampling was used for the eight key informants: the seven heads of the sampled schools and the city school quality assurance officer. These eight were selected because their positions gave them access to information about quality assurance planning, execution and follow-up that no other respondent held. *Table 1* summarises the sample.

Data Collection Instruments

Two instruments were used. The researcher collected data from teachers using a researcher-designed questionnaire. Its main section presented five statements on strategies for strengthening quality assurance practices, each rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The study used a semi-structured interview guide with eight key informants: heads of schools answered three questions, and the quality assurance officer answered three more, covering strategies in use, support required from the city education office, assistance to struggling schools, and the role of professional development.

Validity, Reliability and Trustworthiness

Content validity was established by submitting the draft instruments to management and education experts and to the research supervisors, whose

observations were used to revise the wording and coverage of items before the main study. The instruments were then piloted, and the Likert section returned a Cronbach's alpha of 0.80, which exceeds the 0.70 threshold conventionally accepted for internal consistency. Trustworthiness of the qualitative strand was addressed in three ways: interview responses were recorded and transcribed verbatim; a second reader checked codes and emerging themes against the transcripts; and findings from the interviews were compared with the questionnaire results, so each strand served as a check on the other.

Data Collection and Analysis

Questionnaires were administered to the 85 sampled teachers, and all were returned, giving a response rate of 100 per cent. Interviews lasted between 15 and 30 minutes. Quantitative data were analysed in the Statistical Package for the Social Sciences using frequencies, percentages, means and standard deviations. Mean scores were interpreted against the conventional five-point ranges: 1.00 to 1.80 (strongly disagree), 1.81 to 2.60 (disagree), 2.61 to 3.40 (neutral), 3.41 to 4.20 (agree) and 4.21 to 5.00 (strongly agree). Standard deviations were used to gauge the spread of opinion, with a larger value indicating less consensus among teachers on a given strategy. Interview transcripts were coded and grouped into categories and themes, with frequencies recorded for the number of respondents raising each theme. The two strands were then compared question by question.

Ethical Considerations

The researchers obtained research clearance from The Open University of Tanzania, and the Dodoma Regional Administrative Secretary and the Dodoma City Director granted permission to collect data. Respondents were informed of the study's purpose, participated voluntarily, and gave consent before data collection. No respondent or school is identified by name; school heads are reported by letter and officials by office.

Findings

The three subsidiary questions organise findings. Within each subsection, the quantitative or coded results are presented first and then illustrated with interview evidence.

Teachers' Views on Strategies for Strengthening Quality Assurance Practices

Table 2 reports how the 85 teachers rated the five strategies. Disagree combines strongly disagree and disagree responses; agree combines agree and strongly agree responses.

Table 2:
Teachers' ratings of strategies for strengthening quality assurance practices (n = 85)

Strategy	Disagree n (%)	Neutral n (%)	Agree n (%)	Mean (M)	SD	Rank
Increased funding would improve quality assurance effectiveness	16 (18.8)	1 (1.2)	68 (80.0)	4.02	1.27	1
Regular training workshops should be provided on quality assurance	14 (16.5)	3 (3.5)	68 (80.0)	3.99	1.31	2
Involving teachers in quality assurance planning would enhance implementation	15 (17.6)	6 (7.1)	64 (75.3)	3.96	1.27	3
Collaboration with other schools would strengthen quality assurance practices	23 (27.1)	5 (5.9)	57 (67.1)	3.68	1.43	4
Use of digital tools would make quality assurance processes more efficient	22 (25.9)	6 (7.1)	57 (67.1)	3.67	1.33	5

Note: Scale: 1 = strongly disagree to 5 = strongly agree. Disagree combines the strongly disagree and disagree categories; Agree combines agree and strongly agree. Percentages are of n = 85 and may not total 100 owing to rounding—source: Field data (2025).

All five strategies fell within the agree band of the interpretation scale, so teachers endorsed the whole set rather than discriminating sharply among them. Nevertheless, the differences that emerged are informative. Increased funding was rated highest ($M = 4.02$, $SD = 1.27$), with 68 teachers, four-fifths of the sample, agreeing or strongly agreeing that adequate financing would improve the effectiveness of quality assurance. Only one teacher was undecided on this item, the lowest neutral count in the table, suggesting that teachers hold settled views on the role of money. Regular training workshops attracted the same level of agreement (68 teachers, 80.0%) and a mean only marginally lower ($M = 3.99$, $SD = 1.31$).

Teachers rated the lowest strategy as using digital tools ($M = 3.67$, $SD = 1.33$). Fifty-seven teachers (67.1%) agreed that digital tools would make quality assurance more efficient, but 22 (25.9%) disagreed, the second-highest level of dissent recorded. Inter-school collaboration produced a nearly identical mean ($M = 3.68$) but the largest standard deviation in the table ($SD = 1.43$), together with the highest count of dissent at 23 teachers (27.1%). Dispersion, rather than central tendency, is the more revealing statistic here: teachers agreed on what money and training would do. They disagreed on what technology and collaboration with other schools would do. Interview evidence from the heads of schools, reported in section 4.2, offers a possible explanation.

School-Level Strategies and Support Sought from the City Education Office

The seven heads of schools were asked which strategies they had used or would recommend to strengthen quality assurance in their schools, and how support from the City Education Office could improve implementation. Table 3 presents the coded responses.

Table 3
Heads of schools' strategies and support needs (n = 7)

Focus	Category	Themes raised
Strategies applied or recommended at school level	Staffing capacity	More teaching staff; a permanent internal quality assurance officer
	Infrastructure and ICT	Reliable internet connectivity; a functioning computer laboratory; general facility upgrading
	Internal monitoring and evidence use	Regular internal evaluation and peer review of teaching; use of learner performance data to guide improvement plans
	Parental and community engagement	Collaboration with parents and the community to promote accountability and support school programmes
Support sought from the city education office	Professional learning culture	Continuing training; deliberate cultivation of a culture of continuous improvement
	Capacity building and training	Training for teachers and for heads of schools in quality assurance and instructional leadership
	On-site support visits	Visits to schools for coaching and capacity building rather than inspection alone
	Performance evaluation support	Assistance with subject-level performance evaluation and moderation
	Staffing support and deployment	Allocation of newly employed and transferred teachers to schools with coverage gaps

Source: Field Data (2025).

Staffing was the single most frequently raised concern at school level, mentioned by three of the seven heads, who wanted both additional teaching staff and a permanent internal quality assurance officer rather than the current arrangement in which the role is added to an existing teaching load. Two heads pointed to infrastructure, specifically internet connectivity and a working computer laboratory. Two others described monitoring arrangements they had already put in place:

I have implemented regular internal evaluations and peer reviews to monitor teaching effectiveness. I also encourage continuous professional development to equip teachers with modern teaching methods, strategies and techniques. Collaboration with parents and the community has been key in promoting

accountability and support for school programmes. I would recommend strengthening data-driven decision-making to track student progress and guide improvements in teaching and learning (*Head of School C, Field data, 2025*).

A second head described a closely similar arrangement, adding that performance data should drive the school improvement plan rather than sit in a file:

Regular peer reviews and internal monitoring are very effective in strengthening quality assurance. I also prioritise professional development sessions so teachers stay updated with new teaching methods, strategies and techniques. Engaging parents and the community has helped create a shared sense of responsibility for student success. I would recommend using students' performance data to guide school improvement plans and make evidence-based decisions (*Head of School F, Field data, 2025*).

Two features of these accounts are worth noting. Neither head mentioned inter-school collaboration, which helps explain the divided teacher responses on that item in Table 2. If collaboration is not part of established practice at school level, teachers have little basis on which to judge it. Both heads also treated internal monitoring as something they had instituted themselves rather than as a requirement transmitted from the city office, which points to uneven practice across the seven schools.

On external support, the dominant request was targeted capacity building for both teachers and heads of schools, delivered through school visits rather than centralised workshops. Heads valued the visit format because coaching could be adapted to each school's circumstances. They next raised assistance with subject-level performance evaluation, because consistent evaluation criteria across schools would make comparison meaningful. The fourth request concerned deploying newly employed and transferred teachers to schools with the largest coverage gaps, linking the staffing constraint above to decisions made outside the school.

Improvements Sought by the City School Quality Assurance Office

The city school quality assurance officer was asked what improvements would enhance quality assurance at the city level, how the office supports schools struggling to meet standards, and what part professional development plays. Table 4 presents the coded responses across the three questions.

Table 4
Improvements identified by the City School Quality Assurance Office

Category	Theme	Explanation
Resource enhancement	Resourcing	The City should improve budget allocation to the quality assurance office so inspection coverage can be extended.
Information and policy synchronisation	Policy alignment	Quality assurance officers should be informed promptly of curriculum and policy changes so that inspection criteria remain current.
Stakeholder engagement and feedback	Accountability and feedback	Schools should act on inspection reports, with feedback provided to schools and follow-up on agreed actions.
Inter-institutional collaboration	Sharing of practice	Closer collaboration between schools and the city education office to share practice and address common problems
Support to struggling schools	Teacher training and skills enhancement	Continuing professional development is the principal form of assistance offered to schools that fail to meet standards.
Role of professional development	Instructional and learning quality	Professional development is regarded as the main route to improved teaching, learning and subsequent compliance with standards.

Note. Themes drawn from three interview questions put to the city school quality assurance officer.

Source: Field Data (2025).

Three priorities dominated the account given at city level. The first was funding, specifically the budget available to the quality assurance office, which determines how many schools it can visit and how often. The second was how quickly curriculum and policy changes reach the officers who inspect against them; when criteria are out of date, inspections lose authority in schools' eyes. The third was follow-up. Reports are produced, but the officer's concern was whether any action follows once they have been filed. Asked what improvements were needed, the officer replied:

I would suggest strengthening collaboration between schools and the city education office to share best practices and address common challenges. More frequent monitoring visits and follow-up support would help ensure timely implementation of recommendations. Providing more training and resources for school leaders and teachers would improve their capacity to meet quality standards. Establishing a digital reporting system could enhance data collection, analysis and feedback. Finally, encouraging community participation in school activities would promote accountability and create a

shared responsibility for improving education quality (*City School Quality Assurance Officer, Field data, 2025*).

For schools that fail to meet standards, the office offers one main form of assistance: professional development for teachers. No other support mechanism was described, which indicates a narrow repertoire. The officer's account of why professional development is relied upon was consistent with that emphasis:

As a Quality Assurance Officer, I believe professional development plays a key role in strengthening quality assurance in schools. It equips teachers and school leaders with updated skills, knowledge and strategies to meet curriculum and assessment standards. Continuous training also ensures staff are prepared to implement inspection recommendations effectively. Ultimately, professional development fosters a culture of improvement that directly enhances teaching quality and student outcomes (*City School Quality Assurance Officer, Field data, 2025*).

Notably, the officer's own list of improvements included a digital reporting system and closer inter-school collaboration, the two strategies on which teachers were most divided. The discussion addresses the divergence between the office's priorities and teachers' ratings.

Discussion

Three findings emerged. Teachers regard resourcing and training as the binding constraints on quality assurance and are divided on technology and collaboration. Heads of schools locate the problem in staffing and infrastructure and want external support delivered as coaching at the school rather than as inspection. The city quality assurance office identifies budget, timely policy information and follow-up on reports as its own limitations, and relies on professional development as its single instrument for helping weak schools. Each is discussed in turn.

A Resourcing Problem Rather than an Attitudinal One

The pattern in Table 2 is worth stating plainly: no strategy was rejected, and the two that ranked highest concerned money and training. Read through Total Quality Management, this points to process capability rather than to employee resistance (Evans & Lindsay, 2020). A process cannot outperform the staffing, funding and infrastructure available to it, and teachers appear to be reporting exactly that. This finding aligns with Mbuya and Amos (2024), who found internal quality assurance in Morogoro Municipality constrained by staffing shortages rather than teacher attitude, and it qualifies the emphasis in some of the literature on changing practitioner mindsets. In Dodoma City, mindset is not the obstacle.

The strong endorsement of training ($M = 3.99$) aligns with Kumari and Pandey (2025) on structured capacity building and with Damien and Claire (2022) on teacher preparedness as a correlate of learner performance. It also supports the continuous improvement proposition: teachers asked for ongoing development rather than a single briefing. The 75.3 per cent agreement on involving teachers in planning speaks to employee involvement, and its practical implication is straightforward. Where those who carry out a process help design how it is monitored, implementation fidelity improves, and resistance falls (Kigozi & On, 2020; Mursidi *et al.*, 2020). Fifteen teachers nonetheless disagreed, and the study cannot say whether their reservations concern the principle or the additional workload that participation would bring.

The two lowest-ranked strategies deserve more attention than their means alone suggest. Digital tools attracted the second-widest dissent, and inter-school collaboration the widest dispersion of all five items ($SD = 1.43$). The literature treats both as reliable levers for improvement: technology shortens the interval between observation and feedback (Samuel & Farrer, 2025), and benchmarking against other institutions accelerates improvement (Machumu & Agaptus, 2024). Teachers in Dodoma City were unpersuaded because of their limited exposure to both. Two of the seven heads of schools identified the absence of a computer laboratory and reliable internet as a constraint, and none described any collaborative arrangement with another school. Teachers were therefore rating instruments that most of them had not used. Divided responses to an unfamiliar strategy are not evidence against the strategy; they show missing enabling conditions, which is a different problem with a different remedy.

What Heads of Schools Want, and How They Want It Delivered?

Heads of schools converged on staffing, specifically appointing a permanent internal quality assurance officer rather than assigning the function to a teacher who already has a full timetable. This is the process capability argument again, from the other side of the same problem, and it closely matches Mbuya and Amos (2024). It also affects how internal quality assurance actually works. Where the role is unstaffed, the plan-do-check-act cycle described by Samuel and Farrer (2025) breaks at the check stage, because no one has protected time to conduct observations and record their outcomes.

More interesting than what heads asked for is how they wanted it delivered. They preferred on-site visits over centralised workshops, because coaching could then be adapted to the school. This directly echoes Makiya *et al.* (2022), who found that frequent visits, follow-up visits, prompt feedback, and

non-threatening language distinguished effective quality assurance support in Arusha. It also reframes the purpose of the visit. Heads were not asking for fewer inspections; they were asking for the visit to include developmental content, shifting the encounter from verification toward the improvement function that Odukoya (2025) treats as the second, often neglected, purpose of quality assurance.

The request for assistance with subject-level performance evaluation raises a standardisation point. Without common criteria, results from different schools cannot be compared, and the evidence base for targeted intervention weakens. Olowoselu (2024) makes a related argument: instructional leadership training enables heads of departments to use such evidence once it exists. Taken together, the two requests describe a system that has monitoring activity but not yet comparable monitoring data.

A Narrow Repertoire at System Level

The city office's account of its own limitations was candid, and its three priorities map onto recognisable weaknesses. An inadequate budget restricts inspection coverage and, in turn, the evidence available for targeting support. Delayed communication of curriculum and policy change leaves officers inspecting against superseded criteria, which erodes the credibility of the exercise in schools. Weak follow-up means the inspection report becomes a document rather than a decision. Mursidi *et al.* (2020) argue that a quality culture depends on this loop between evaluation, commitment, and action, and its absence would explain the school-level reports of delayed feedback noted in the introduction.

Against those three problems, the office reported a single instrument: professional development. That professional development matters are not in dispute, and the evidence linking teacher competence to learner attainment is substantial (Kassim *et al.*, 2024; Qingyan *et al.*, 2023). The difficulty is one of fit. Two of the three problems the office identified, budget and follow-up, are structural, and training cannot resolve them. Where a school fails to meet standards because it has no computer laboratory or because a subject has no qualified teacher, a workshop is the wrong instrument. A wider repertoire would include differentiated follow-up schedules for schools identified as at risk, brokered support between schools, and the ability to escalate resource problems to the council with evidence attached.

One divergence between the two strands deserves comment. The quality assurance officer named a digital reporting system and closer inter-school collaboration among the improvements needed, and these were precisely the two strategies on which teachers were most divided. The convergent parallel

design was intended to surface exactly this kind of contradiction. Read together with the heads' reports of missing connectivity, the divergence suggests a sequencing problem rather than a disagreement about direction: the office is proposing an information system for schools that do not yet reliably have the infrastructure to operate it. This tempers the recommendation, common in the literature, to digitalise quality assurance (Samuel & Farrer, 2025). Digitalisation is a reasonable objective, but connectivity and basic training have to precede it, or the reform will produce non-compliance that is then misread as resistance.

Conclusion and Recommendations

Quality assurance practices in public secondary schools in Dodoma City are limited more by resources than by the disposition of those who implement them. Teachers endorsed all five strategies, ranking funding and training highest and returning divided verdicts only on digital tools and inter-school collaboration, the two strategies in which their schools have the least experience. Heads of schools identified staffing and infrastructure constraints and asked for external support to arrive as coaching at the school rather than inspection alone. The city quality assurance office identified budget, delayed policy information and weak follow-up on inspection reports as its own limitations, yet relies on professional development as its only instrument for assisting schools that fall short. The three accounts agree on the diagnosis, which is unusual and useful: the practices exist but are under-resourced, unevenly staffed and rarely closed by follow-up.

Four recommendations follow. School management should institutionalise internal classroom observation by setting a published timetable, a standard observation record and a documented feedback loop, so that monitoring does not depend on the initiative of an individual head of school. The city education office should redirect part of its support toward school-based coaching and common criteria for subject-level performance evaluation. It should communicate curriculum and policy changes to quality assurance officers before, rather than after, the inspection cycle. Councils and the Ministry should treat the appointment of a dedicated internal quality assurance officer in every school, and connectivity in schools expected to report digitally, as prerequisites for the reforms already set out in policy rather than as later refinements. Further research should test these findings on a larger, more mixed sample, since a study of seven urban schools cannot establish how far the pattern holds in rural districts where resource constraints are typically sharper.

Limitations of the Study

Three limitations qualify these findings. The study covered seven public secondary schools in a single urban council, so the results describe Dodoma City and cannot be generalised to rural districts or to private schools. The quantitative strand measured perceptions of what would strengthen quality assurance, not the effect of any strategy on attainment, so it makes no causal claim about academic performance. Finally, the system-level account rests on a small number of key informants, which is appropriate given how few officials hold these posts but limits how far their views can be treated as representative of city administration generally.

Declarations

Conflict of interest: The first author is employed by Dodoma City Council, the jurisdiction in which the study was conducted. To limit any influence on the data, she did not participate in selecting the participating schools, and she interviewed city education officials using the same guide as all other interviews.

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Data availability: anonymised data are available from the corresponding author on reasonable request.

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Manuscript Preparation - JIPE

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Page set-up of the manuscripts should be on A4 or 8.5" x 11 "paper, typed double-spaced (24-26 lines per page), with margins of top 25mm, bottom 25mm left 40mm and right 20mm.

Font

The font size of main text shall be 12 in Times New Roman

Manuscripts should be arranged in the order of: title page, abstract (structured summary) including up to five keywords, main text, acknowledgements (if applicable), references, tables, and figure.

Title Page

This page must include the following information:

- The title of the manuscript which should be concise, specific, informative, and clear.
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Abstract

The first page following the title page should contain an abstract. Abstract should contain up to 250 words mainly of the object and main findings of the paper. Three to five keywords representing concepts of the paper may be written at the end of the abstract. The Abstract shall be in *italics*.

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In the main text:

Introduction: Should describe the objective of the reported work and provide relevant background information.

Methodology (Where the study/research dictates): This part should identify the paradigms/approach, population, area of study, procedures employed and any other relevant input to the realization of the study.

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of tables and figures is allowed, but the use of text to emphasize important points is encouraged.

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Tables and figures should be as close as possible to the text explaining the concept. Tables should be numbered in the order in which they are mentioned in the text. A Table caption must be presented in upper case at the top and Figure caption should be typed in bold immediately below the Figure. Explain in footnotes all non-standard abbreviations used in each table.

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All references should adhere to the latest version of APA format.

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