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Effectiveness of Instructional Leadership Strategies in Female Students' Higher Education Aspirations in Public Secondary Schools: Evidence from Morogoro Municipality, Tanzania

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Abstract: **Increasing the participation of females in higher education, especially in the programs on Science, Technology, Engineering, and Mathematics (STEM) courses, is a crucial objective for socio economic development in Tanzania. While policy interventions have successfully increased the retention of girls in lower secondary education, the participation of girls in STEM courses in university level remains low. Based on the premises of the Social Cognitive Theory and Expectancy-Value Theory, the current paper will assess the effectiveness of instructional leadership strategies in encouraging higher education aspirations among female students. Using the convergent mixed-method approach, the study was conducted in public secondary schools in Morogoro Municipality. Quantitative data were collected from the simple random sample of 391 female secondary students taken from the targeted population of 17,448 students using the formula of Yamane's career guidance diagnostic feedback (1967). The qualitative part of the study involved 10 Heads of Schools and 20 Career Guidance Teachers. Ten schools were randomly selected from the total of 32 public secondary schools. Each selected school had two Career Guidance Teachers and therefore, 20 Career Guidance Teachers were included in the study using total population sampling method. The total study sample was composed of 421 participants. Results of the study showed that female students perceived the strategies used by school leadership to be insufficient for encouraging their tertiary aspirations because routine supervision focused predominantly on ensuring administrative compliance and syllabus completion without taking care of the prospective career guidance, diagnostic feedback, and goal setting. The current paper argues that the current school leadership practices are more focused on the process of preparation for the examinations than on encouraging the self-efficacy toward further education of female students. Recommendations include the reform of supervisory rubrics according to gender-based engagement criteria, implementation of the university alignment counseling policy, and inclusion of academic consulting hours in the master timetable.**

Keywords: **female STEM aspirations, higher education transition, instructional leadership strategies, school supervision, tertiary self-efficacy.**

1. INTRODUCTION

In the modern educational system of any country, the access to tertiary education, especially for female students in the field of Science, Technology, Engineering and Mathematics (STEM) is viewed as one of the key drivers of socio-economic transformations and technological innovation. While the gender gap between male and female secondary school enrolments is decreasing internationally (UNESCO Institute for Statistics, 2023), globally only 35% of higher education graduates in

STEM courses are female (ibid.). At the policy level, developed countries (OECD, 2023) increasingly rely on the interventions in order to overcome the gender disparity and encourage the mentorship, instructional supervision, and other practices. However, the problem of systemic leakage remains at each stage of the pipeline preventing the qualified females from advancing in further education until they reach the university matriculation.

In Sub-Saharan Africa, the gender disparity becomes even more pronounced in case of the transition stage from secondary to tertiary education. The education systems in the region experience the problems of institutional bottlenecks (African Development Bank, 2022) because the socio-cultural traditions, resource constraints and administrative practices in schools prevent female students from progressing further. Although many of the continental policy interventions under the Agenda 2063 (African Union Commission, 2021) address the issue of development of scientific human capital, the sectoral assessments have demonstrated that the higher education institutions across the East African region have continued to record underrepresentation of women in STEM degrees programs. In the East African Community (East African Community, 2022), although the numbers of secondary school enrolments are growing, the transition of female secondary graduates into competitive university STEM degree programs remains hindered by the leadership practices in schools.

In the case of Tanzania, such national educational interventions as the Secondary Education Quality Improvement Project (Ministry of Education, Science and Technology [MoEST], 2024; World Bank, 2025) and new fee-free basic education guidelines (United Republic of Tanzania, 2023) have promoted the increase in the enrollment and retention of girls in secondary schools. However, national reviews of the educational system (Tanzania National Bureau of Statistics, 2024) have demonstrated that the significant number of high-performing female secondary school graduates prefer entering non-STEM or terminal diploma programs instead of STEM degrees in universities. While policy assessments at the macro-level usually attribute the problem of gender disparity in educational transitions to external socio-economic or infrastructural variables, they tend to overlook internal administrative mechanisms (Tanzania Institute of Education, 2022) and the role of instructional leadership in fostering the tertiary self-efficacy of female students and their academic ambitions.

Instructional leadership practices such as supervisory monitoring, teacher feedback, curricula alignment and academic performance tracking are the main administrative mechanisms of fostering academic self-efficacy and tertiary education transition. Based on the theories such as the Social Cognitive Theory (Bandura, 1986) and the Expectancy-Value Theory (Eccles & Wigfield, 2020), the individual agency, educational decisions, and career expectations are influenced by the immediate instructional environment, institutional feedback and mastery experiences. When school leaders adopt gender-oriented instructional supervision and academic performance tracking, it increases the expectancy of success and self-efficacy in STEM.

In the case of Morogoro Municipality, the educational center of Tanzania with numerous public secondary schools and accessibility to university campuses such as Sokoine University of Agriculture and Mzumbe University, the problem is evident. Although there are plenty of public secondary schools in the area, as well as good accessibility to the universities, the rate of female students' transition into STEM degrees in the public secondary schools in Morogoro Municipality is low. However, the empirical evidence of how Heads of Schools of Morogoro Municipality use instructional leadership strategies to shape, encourage, and promote the aspirations of female students for tertiary education remains unavailable. Using the empirical data from the convergent mixed-methods study conducted among 391 female secondary students, 10 Heads of Schools, and 20 Career Guidance Teachers, the current study explores the influence of instructional supervision, academic performance tracking, and pedagogical feedback on the STEM aspirations of female students in Morogoro Municipality.

2. STATEMENT OF THE PROBLEM

The Government of Tanzania has made considerable investments in the development of secondary education through various projects, such as the Secondary Education Quality Improvement Project (World Bank, 2023). The efforts have promoted improvements in the infrastructural and instructional conditions, professional development of teachers and creation of gender-sensitive environment allowing female students to gain access to and complete lower secondary education. Nevertheless, the participation of female students in STEM programs in the tertiary level remains low, especially in case of engineering and Information and Communication Technologies (Matete, 2021). Thus, improving access conditions is not enough for promoting the female students' self-confidence, aspirations and intentions to pursue STEM education.

Despite the existence of the wide empirical literature on the problem of participation of female students in STEM education in Tanzania, most of it focuses on the external factors contributing to the problem, such as lack of facilities, shortage of science teachers, family socio-economic background and socio-cultural factors. However, the attention has not been given to analyzing the possible influence of the internal processes in the school administration on the aspirations of students. Although there is much empirical literature on the topic of organizational leadership practices, there are gaps in the literature regarding the influence of strategic planning, instructional supervision and management of peer group norms on the self-efficacy of female students and their STEM aspirations.

Such absence of empirical knowledge is problematic because school administrators are key agents in transforming the policies regarding education into the practices of teaching, counseling and mentoring of students. Consequently, the functioning of these processes in public secondary schools of Morogoro Municipality remains an important empirical issue. Therefore, the present study investigates the influence of strategic planning, instructional supervision and management of peer group norms on the aspirations of female students to pursue higher education in STEM fields in public secondary schools in Morogoro Municipality, Tanzania.

3. RESEARCH QUESTION

What is the effectiveness of instructional leadership strategies in encouraging the aspirations of female students to pursue higher education in public secondary schools in Morogoro Municipality?

4. REVIEW OF EMPIRICAL STUDIES

At the international level, the empirical literature demonstrates the importance of instructional leadership as the key school-level factor influencing the effectiveness of teaching and academic performance of students. For instance, using the structural equation modeling in the USA, Jang and Alexander (2022) have found that heads of schools who conduct classroom walkthroughs, give pedagogical feedback and organize professional learning communities improve the academic performance of students in mathematics and science. Meanwhile, the large-scale empirical study conducted by Li et al. (2023) in China has shown that principal instructional leadership had the indirect influence on the academic achievement of students through increased teacher self-efficacy and classroom management. According to Day et al. (2020), effective school leaders succeed in combining instructional leadership practices and institution building thus promoting the sustainable improvements in academic performance. Despite the fact that the mentioned international studies provide the empirical evidence about the positive effects of instructional supervision on the academic achievements of students, they focus on academic achievements at the testing stage and do not touch upon the issue of post-secondary career choices and gendered dynamics of post-secondary aspirations.

İmamoğlu Akman and Arastaman (2026) in Turkey investigated the effect of academic aspirations, teacher classroom leadership, principal leadership, cultural capital and academic achievement on secondary school students. The researchers found out that cultural capital accounted for variations in student achievement, while teacher classroom leadership, principal leadership and academic aspirations did not have the direct effect on achievement. As it is suggested by Robinson and Gray (2021), when educational leaders focus on the core of teaching, learning and curricular coordination in their practice, their indirect influence on the post-secondary aspirations of students becomes stronger. However, the authors suggested that the school leadership can influence student outcomes indirectly through some factors. The mentioned study provides the recent evidence from Europe on the relationship between school leadership and academic aspirations; however, it does not specifically address female students or higher education aspirations. Therefore, it is necessary to investigate the influence of instructional leadership practices on the higher education aspirations of female students.

Across Sub-Saharan Africa, the empirical literature demonstrates the positive effect of instructional monitoring on learning environments. Using the descriptive survey design in Ghana, Abonyi et al. (2022) have found that the monitoring of the execution of the lesson plan, verification of the curricula coverage and inspection of student work records by headteachers promoted significantly better academic output in public basic schools. Similarly, using the convergent mixed-methods design in South Africa, Musandu et al. (2023) found out that classroom observations and continuous teacher feedback reduce the instructional deficits in under-resourced secondary schools. However, in both cases, the studies did not analyze the downstream psychological effects of instructional supervision on the self-concept and tertiary education aspirations of female students.

In the East African context, the empirical literature demonstrates the positive correlation between instructional leadership practices and performance indicators of secondary schools. Conducting the quantitative study in Kenyan secondary schools, Gatama et al. (2023) identified the correlation between frequent instructional supervision by headteachers and student performance on the Kenya Certificate of Secondary Education (KCSE) exams. At the same time, in Uganda, Kyambogo et al. (2024) conducted the qualitative case study and found out that the collaborative curricula supervision by school management promotes the improvement of science instruction delivery. Although the regional studies provide the empirical evidence regarding the importance of instructional supervision practices, they evaluate the student outcomes in terms of general pass rate at the examinations, but not how the instructional supervision practices affect the intentions of female students to enter the university STEM programs.

In the Tanzanian context, the existing empirical literature on instructional leadership practices mostly focuses on the administrative management and examination outcomes. For instance, conducting the study in the public secondary schools of Morogoro Municipality, Mtei (2022) found out that Heads of Schools who conduct regular classroom observations and provide sufficient science teaching aids have better examination results at the school level. Supporting this, Bush and Anania (2023) found that the formal administrative training in instructional supervision increased the frequency of supervisory visits among public secondary school heads. However, the existing Tanzanian literature rarely expands the scope of research and investigates how the instructional supervision practices affect the academic self-efficacy, STEM identity and tertiary aspirations of female students.

5. METHODOLOGY

Based on the pragmatic research philosophy, the study has adopted the convergent mixed-methods design for assessing the effectiveness of instructional leadership strategies on female students' higher education aspirations in public secondary schools in Morogoro Municipality, Tanzania. Within this design, the quantitative strand focused on the population of 17,448 female secondary students. Using the formula of Yamane's 1967 career guidance diagnostic feedback, a sample of 391 students was derived. The two-stage simple random sampling technique was applied: firstly, 10 public secondary schools were randomly selected from the total of 32 public secondary schools in the municipality, secondly, student respondents were randomly selected from within these institutions. At the same time, the qualitative strand included 10 Heads of Schools and 20 Career Guidance Teachers. The 10 schools were randomly selected from the total of 32 public secondary schools. Each selected school had two Career Guidance Teachers and therefore, 20 Career Guidance Teachers were included in the study using total population sampling yielding an aggregated sample of 421 participants.

The data collection tools comprised structured 5-point Likert scale questionnaires among students, semi-structured interviews among administrative staff and the review of strategic plans, counseling logs and academic progress reports. The instrument reliability was established during the pilot test which yielded the Cronbach's alpha coefficients of 0.781 for the instructional leadership scale. The quantitative data were analyzed using the descriptive statistics (frequencies, percentages, means, standard deviations) with the use of IBM SPSS Statistics Version 20. The qualitative data were analyzed using the thematic analysis based on the six phase framework of Braun and Clarke (2006) for empirical findings triangulation. Ethical compliance was ensured through the institutional clearance, formal administrative permission, informed consent and minor assent, anonymization of the participants by alphanumeric codes and encryption of the data.

6. FINDINGS AND DISCUSSION

Based on the Social Cognitive Theory and Expectancy-Value Theory, the convergent mixed-methods study aimed to examine how instructional leadership strategies such as supervision, academic feedback and target setting influence the higher education and STEM aspirations of female students in public secondary schools in Morogoro Municipality, Tanzania. Integrating the quantitative data from female secondary students with the qualitative interviews from Heads of Schools and Career Guidance Teachers, along with the institutional documents review, the study provided the empirical insights to inform gender-responsive educational management, leadership policy and secondary-to-tertiary transition frameworks in the Tanzanian public education. Below is the quantitative data table presenting students' Responses on Instructional Leadership Strategies and Female Students' Higher Education Aspirations.

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Table 1: Students' Responses on Instructional Leadership Strategies and Female Students' Higher Education Aspirations

Statements	SD *f (%)*	D *f (%)*	N *f (%)*	A *f (%)*	SA *f (%)*	Mean	S.Dev
School leadership supervision ensures high-quality instruction that prepares me for higher education entry	47(12.0)	155(39.6)	153(39.1)	32(8.2)	4(1.0)	2.47	0.85
Leadership support for teacher professional development improves instructional quality and boosts my higher education ambitions.	48(12.3)	163(41.7)	132(33.8)	43(11.0)	5(1.3)	2.47	0.89
Systematic academic tracking and progress monitoring by school leaders motivate me to achieve university entry requirements.	50(12.8)	141(36.1)	139(35.5)	55(14.1)	6(1.5)	2.55	0.94
Leadership promotion of interactive and learner-centered classroom methodologies strengthens my confidence for tertiary studies.	47(12.0)	161(41.2)	137(35.0)	37(9.5)	9(2.3)	2.49	0.91
Regular constructive feedback on academic performance from school leadership encourages my higher education preparation.	51(13.0)	156(39.9)	121(30.9)	54(13.8)	9(2.3)	2.52	0.96
Equal learning opportunities provided by teachers are sufficient to strengthen my aspirations to pursue higher education.	43(11.0)	146(37.3)	141(36.1)	50(12.8)	11(2.8)	2.59	0.94
School leaders' monitoring of teaching and learning enhances my higher education aspirations**.**	42(10.7)	168(43.0)	120(30.7)	45(11.5)	16(4.1)	2.55	0.97

Note. n = Sample size (*n* = 391); S.Dev = Standard deviation; SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; f = Frequency; % = Percentage.

Source: Field Data (2026).

The analysis of student responses from the data shown in the table above indicates low perceptions of instructional leadership support for higher education aspirations across all examined dimensions. The means fall in a narrow range of 2.47 standard deviation 0.85 to 2.59 standard deviation 0.94 and remain consistently below the theoretical neutral baseline of 3.00 on a five-point Likert scale. Negative responses Strongly Disagree and Disagree dominate among all indicators from 48.3% (189) for progress tracking to 53.7% (210) for general monitoring. Notably, statement 1 about supervision for quality instruction Mean 2.47, Standard Deviation 0.85 and statement 2 about leadership support for professional development Mean 2.47, Standard Deviation 0.89 received the lowest mean scores of only 9.2% and 12.3% agreement. Such statistics suggest that female secondary school students perceive administrative supervision as a procedural activity rather than a tool for tertiary preparation. In order to understand the factors causing these quantitative findings, qualitative interview data and document reviews have been thematized in six key domains:

Instructional Supervision and Quality Instruction

Regarding the supervisory oversight and academic quality, 51.6% (202) of female students expressed negative views that the administrative supervision guarantees preparation for university studies. On the other hand, 9.2% (36) agreed while 39.1% (153) took a neutral position resulting in the overall mean of 2.47 with standard deviation of 0.85. These numbers indicate structural gap in which the process of supervising is more focused on examination readiness than tertiary preparation of students. Indeed, qualitative data showed that although the routine supervision is carried out in general terms with the intention to ensure that students are instructed sufficiently to pass examinations, this process does not include linking classroom teaching with the university admission criteria. For example, one of the Career and Guidance Teachers mentioned that: "*We mainly prepare the students for their Form IV examinations, but ensuring academic guidance on how to link the subjects taught to university degree programs is never incorporated in routine instructional supervision" (*Participant CGT-02)

As the process of supervision focuses on the lesson plan completion, teachers have no formal obligation to explain the connection between secondary school subject combinations and university programs. The qualitative data confirmed it saying: "*The heads of the schools inspect lesson plans and scheme of works, but there is no systematic directive to ensure that teachers guide the female students on subject choice alignment in relation to the specific university program.*" (Participant CGT-12). One of the Heads of school supported this procedural approach, saying that most of the internal supervisors have to ensure that all desires of the external supervisors are met, emphasizing it by saying that: *"Our instructional supervision involves completing the syllabus on time. University guidance is done at the discretion of individual teachers rather than following a systematic supervisory system"* (Participant HoS-05)

The high student-to-teacher ratio hinders individual advising (Participants HoS-02, HoS-08). Reviewing the records of the institutional supervision showed that the post-observation evaluation rubrics focus only on syllabus completion and classroom management without evaluating post-secondary counseling. These results support the conclusions made by Robinson et al. (2021) who found that the instructional supervision fosters tertiary aspirations only if the academic advising is integrated into it. According to the Expectancy-Value Theory (Eccles & Wigfield, 2020), not establishing the connection between the current academic performance and the future post-secondary paths limits the expectations of success.

Motivation and Academic Encouragement

In regards to the motivational support, where teacher professional development is considered as a motivating factor, when a teacher is motivated positively, then students are motivated too. 54.0% (211) of the respondents expressed negative views, with 41.7% (163) disagreeing and 12.3% (48) strongly disagreeing. 33.8% (132) neutral responses and 12.3% (48) agreeing (11.0%, 43 agreed; 1.3%, 5 strongly agreed) yield the Mean of 2.47 and standard deviation of 0.89. The analysis of motivational support indicated that the administrative encouragement is generalized and unrelated to the barriers female students face in secondary education. Instead of incorporating gender-responsive mentorship into daily instruction, motivational activities are considered as peripheral ones by both teachers and students. Thus, the female learners do not have the specific motivational support that is necessary to pursue competitive STEM and university pathways.

The qualitative data confirmed this finding, demonstrating that general motivational statements are not related to gendered realities. For example, one of the Key informants says: *"Teachers encourage students in general terms, but gender-specific encouragement that would take into account the barriers female students face in pursuing university education is scarce"* (Participant CGT-03). From the analytical point of view, the institutional motivation is considered as a top-down, generalized exercise rather than the structured mentorship. The researcher notes that the framework of school administration does not institutionalize gender-responsive encouragement to develop the self-efficacy of female students. Therefore, female students get the minimum individualized coaching to be resilient enough to enter university. The qualitative findings showed that this problem exists due to the high workload and scarce resources which limit the capability of the educators to provide coaching.

Demonstrating how organizational strain influences the sustained encouragement, one Head of School mentioned: *"To motivate students well, teachers themselves should be motivated. The high workload and scarce resources hamper teachers' enthusiasm to be persistent motivators*" (Participant HoS-07). Participants note that the motivation usually occurs during examination periods rather than in the process of regular instruction. Moreover, professional workshops on gender-responsive pedagogy are absent (Participant HoS-06). Minutes of the meeting and teaching guidelines did not have the protocols for gender-responsive motivation integration into teaching. It concurs with the findings of UNESCO (2023) and Day et al. (2020) who highlight the importance of the continuous gender-responsive encouragement.

Setting Academic tracking Goals for Tertiary Entry

Regarding systematic academic tracking and progress monitoring, 48.9% (191) of the respondents expressed negative views, with 36.1% (141) disagreeing and 12.8% (50) strongly disagreeing. Neutral positions were taken by 35.5% (139), while 15.6% (61) agreed (14.1%, 55 agreed; 1.5%, 6 strongly agreed) leading to the Mean of 2.55 and standard deviation of 0.94. These quantitative results indicated that the structural reliance on the top-down administrative targets rather than individualized student planning occurs in the process of goal setting which was confirmed by qualitative data showing that the goal setting operates as a macro-level administrative task. For example, one Head of School explained: "*The target setting is conducted for the institution and subject to achieve high national examinations pass rates. An individualized target grade setting for university entry is not systematically performed.*" (Participant HoS-09).

Such findings indicate that, as the target-setting protocol is functioning more as the annual compliance check than the advising process, individual academic goals lose their strategic value throughout the school year. The absence of the periodic reviews for monitoring the progress against the competitive admission thresholds prevents these performance benchmarks from giving female students the continuous feedback they need to maintain their tertiary aspirations. One of the Career guidance teachers confirmed it by saying that*: "The students are asked to write down their target grades at the beginning of the year, but teachers do not go back to the targets to check the alignment with university requirements"* (Participant CGT-01)

The Counselors noted that the goal setting is functioning as an administrative task rather than an individual guidance strategy (Participants CGT-05, CGT-14). The leaders focused on the basic pass rates rather than on competitive university entry thresholds (Participant HoS-04). The departmental files showed no individual student target tracking logs in nine out of ten schools. These results concurred with the findings of Musandu et al. (2023), confirming that the goal setting limited only to basic pass rates does not foster post-secondary aspirations.

Feedback Constructive on Academic Performance

Concerning academic feedback, 52.9% (207) of the respondents disagreed that leadership feedback prepares students for university life (39.9%, 156 disagree; 13.0%, 51 strongly disagree). On the other hand, 16.1% (63) agreed and 30.9% (121) of the participants had neutral positions with a mean of 2.52 and Standard Deviation 0.96. From qualitative data, academic feedback is evaluative in nature but not formative. Feedback given to students that might build up their confidence in becoming successful in pursuit of higher education is not common among teachers. This is supported by one of the Career guidance teachers that*: "The feedback to the students is mainly about numbers of marks in test papers. The teachers do not sit with female students to explain to them how their performance should be improved in order to achieve competitive university entrance points.* " (CGT-07).

Teaching duties burden the teachers hence making it impossible to conduct formative interventions; the classes are large and hence it is hard for the teachers to reach every single student. As one of the Head of school put it*: "Due to large class sizes, teachers spend much time marking scripts, leaving no room for conducting detailed diagnostics and providing constructive feedback that can build academic self-efficacy of female students*" (HoS-03). Participants mentioned that low-performing students get scores of tests without any form of corrective feedback (CGT-10), while monitoring rubrics fail to assess the quality of feedback: *"The instructional monitoring rubrics do not include measures to evaluate the quality of feedback that teachers provide to the students; they only checks whether exercises are marked and recorded*" (Participant HoS-05)

Documentary evidence showed that marked exercise books contained only numerical scores or stamps without any written developmental advice. This is in agreement with Jang & Alexander (2022), who proved that non-formative assessment does not create academic self-concept. According to social cognitive theory (Bandura, 1986), lack of feedback deprives female students the verbal persuasion they require in building self-efficacy for higher education.

Provision of Equitable Learning Opportunities

Assessing classroom equity, Concerning equal learning opportunities, 48.3% (189) of the participants hold negative opinions with 37.3% (146) disagreeing and 11.0% (43) strongly disagreeing. Neutral opinions were held by 36.1% (141), while 15.6% (61) agreed (12.8%, 50 agreed; 2.8%, 11 strongly agreed), yielding a mean of 2.59 and a standard deviation of 0.94. The statistical data show that most of female students view their learning opportunities in classroom environment as being inequally distributed. This means that instructional practices continue to create subtle gender disparities that hamper female students' preparation and confidence for higher education.

Qualitative data revealed that large class sizes contribute significantly to gender disparities during practical lessons. This was clearly stated by one of the participant as follows: "*In large classes of science subjects, male students often take all practical equipment and answer questions whereas teachers do not interfere with the situation in order to provide the same hands-on experience for female students." (Participant CGT-11). Structural barriers have been found to directly inhibit gender-responsive* teaching. Even though there are administrative guidelines for classroom equity, large class sizes and strict timetables make such teaching practices not feasible in operation. Therefore, large student-to-teacher ratio necessitates lecture-style teaching and excludes female students from active engagement. Supporting the above assertion, one head of school said: *"We encourage teachers to use gender equity in classes; however, with forty-minute periods and classes containing over 60 students, it is very difficult to provide equal involvement for all female students*." (Participant HoS-06)

Unconscious bias limits the expectations of girls in physical sciences, while formal equity monitoring system has not yet been put in place (HoS-01, HoS-04). Logbooks confirmed the absence of gender-disaggregated participation tracking in all the sampled schools. This corresponds with Abonyi et al. (2022), showing that instruction that lacks gender-sensitive strategies systematically limits female students' academic self-efficacy and STEM transition rates.

Supervisory Monitoring of Teaching and Learning

Concerning the role of school leaders in monitoring of teaching and learning, 53.7% (210) of the participants expressed their dissatisfaction, 43.0% (168) disagreeing and 10.7% (42) strongly disagreeing. Neutral opinions were held by 30.7% (120), while 15.6% (61) agreed (11.5%, 45 agreed; 4.1%, 16 strongly agreed), giving a Mean of 2.55 and a standard deviation of 0.97. The statistical data above show that more than half of female students rate supervisory monitoring as ineffective for academic preparation. It shows that regular monitoring of instruction functions mainly as administrative task and not an academic preparation tool.

Participants confirmed that supervisory monitoring emphasizes administrative compliance rather than pedagogical content. One of the Head of School expressed the opinion that*: "The supervision of instruction is conducted by checking completion of scheme of work, lesson plan and class attendance register. Whether the teaching strategies develop critical thinking skills and prepare students for tertiary study is rarely assessed"* (Participant HoS-10). Similarly, it has been shown that observational visits of internal quality assurance by Heads of schools focused on administrative compliance rather than the preparation of post-secondary education. One participant said: "*Supervision visits of the Head of School are focused on ensuring the presence of a teacher and his or her teaching activity; they are not aimed at evaluation of whether instruction is connected with the post-secondary aspirations of students"* (CGT-15)

Central inspection checks give priority to procedural indicators rather than higher-order ones, while tools to evaluate career-oriented pedagogy are missing (Participant CGT-19). Inspection tools confirmed that indicators were limited to lesson plans, schemes of work, and board neatness. The findings above reflect those of Mtei (2022) and Gatama et al. (2023), who established that procedural inspection without pedagogical coaching does not elevate student's ambition.

From analysis of survey data, key informants, documents, and literature, it has been shown that the current instructional leadership in public secondary schools in Morogoro Municipality offers little assistance in developing the university aspirations of female students.

7. CONCLUSION

The findings indicate that instructional leadership practices are an important school-level factor related to the development of female students' higher education aspirations. However, instructional leadership in public secondary schools in Morogoro Municipality is limited by an emphasis on administrative compliance, heavy teaching workloads, large class sizes, and lack of gender-sensitive goal setting. In spite of the routine supervision, practices remain oriented at syllabus completion rather than prospective diagnostic feedback and career orientation.

8. RECOMMENDATION

Integrated Action Plan for Gender-Responsive Instructional Leadership

In order to effectively bridge the gap between secondary schools instruction and the higher education aspirations of female students, Heads of Schools, in collaboration with Academic Masters/Mistresses, Career Guidance Teachers, and PO-RALG quality assurance officers, should adopt a Gender-Responsive instructional Supervision and Career Tracking Framework as part of their annual school operational plans. This involves modification of classroom observation rubrics to include evaluation of prospective diagnostic feedback, introduction of gender-disaggregated tracking of laboratory participation, and inclusion of tertiary program alignment into routine supervisory checks during the preparation and execution of annual school budgets and termly academic planning cycles. Implementation of this should be done through allocation of two weekly protected advisement periods within the master timetable for academic counseling, establishment of formal school-based female STEM mentorship clubs, and conducting compulsory professional development workshops for school leaders on gender-sensitive supervision. Finally, this integrated action plan will enable the shift in the nature of instructional supervision from mere syllabus completion to fostering academic self-efficacy of female students subject to degree alignment and competitive entry into higher education STEM disciplines.

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