

Towards Inclusive Quality Education: How School-Based In-Service Teacher Mentorship and Support are Transforming Classroom Instructional Practices in Kenya

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DOI: <https://doi.org/10.47772/IJRISS.2026.100300316>

Received: 15 March 2026; Accepted: 20 March 2026; Published: 06 April 2026

ABSTRACT

Teachers play a critical role in the provision of quality education. Yet, many teachers across Sub-Saharan Africa exhibit low competence to offer quality education. However, teacher professional development can enhance teacher competence. Unfortunately, existing professional development programmes are not adequately enhancing teacher pedagogical skills, enabling quality teaching. This paper provides insights into how an innovative school-based in-service teacher mentorship and support (SITMS) can transform teacher competence, resulting in effective classroom instructional practices and quality learning outcomes. The study was conducted across 35 primary schools in Kenya. Purposive sampling was used to select 105 teachers from 35 primary schools. A mixed research design was employed, utilizing both quantitative and qualitative techniques. Self-administered questionnaire, interview schedule, and FGD guide were used for data collection. The study revealed that school-based teacher mentorship and support caused a significant improvement in teacher pedagogical competence in inclusive instructional practices, collaborative teaching integration of ICT in teaching and learning, and life skills. Based on these findings, it is recommended that education stakeholders and policymakers scale up and institutionalize school-based mentorship and support models to enhance teacher competence across schools. Embedding transformative teacher professional development frameworks within the education system will not only strengthen pedagogical competence but also ensure sustainability, inclusivity, and improved learning outcomes for diverse student populations.

Keywords: Teacher professional development, teacher competences, mentorship

BACKGROUND

The Sustainable Development Goal (SDG) 4.1 seeks to ensure that all children complete free, equitable, and quality primary and secondary education leading to relevant and effective learning outcomes. Yet education systems across Sub-Saharan Africa (SSA) are confronted by a myriad of challenges with implications for the quality of education (ADEA, 2024; UNESCO, 2023). One major challenge that negates efforts to provide equitable quality education is the shortage of competent teachers.

Whereas the teacher shortage is a global challenge, SSA suffers disproportionately (USAID, 2018; UNICEF, 2019; GPE, 2023; Madaki, 2021). An estimated 15 million additional qualified teachers are needed in SSA so as to achieve universal primary and secondary education by 2030 (UNESCO, 2024). In the meantime, SSA countries record a Pupil Teacher Ratio (PTR) of 52:1, which is considerably higher compared to PTRs of about 22:1 in developed countries. High PTRs have been associated with low learning outcomes.

With more than 617 million primary and lower secondary school children globally, 58% of those children are not reaching minimum proficiency in math (USAID, 2018). Moreover, more than half of the children in the low- and middle-income countries (LMIC) cannot read even a single word. In Kenya, overall, only 39 in 100 boys and 41 in 100 girls meet expectations in solving grade 3 numeracy problems and reading appropriate English text, respectively (FLANA, 2023).

Evidence from other countries in the region paints the same picture. Tanzania is faced by an education crisis with thousands of children passing through primary school without mastering even the basic skills (UWEZO, 2014, UWEZO, 2021; Tanzania National Examination Council, 2022). The persistent low learning outcomes across the region have been associated with low teacher competence

The World Bank (2010) noted that even where pre-service training was offered, teachers still need to enhance their competence through continuous professional development. Substantial research evidence has linked effective teacher professional development programmes to effective classroom practice or instructional quality and student learning outcomes (UNESCO, 2005; Jentsch & König, 2021; Baier et.al., 2019). Most SSA countries do not have the capacity to train an adequate number of qualified teachers. Moreover, teachers provide mentorship and support to enhance their competence in areas such as inclusive education, integration of ICT in teaching, and life skills (Migani et al. 2017, Mafora, 2013; Mogashoa, 2015; Moon and Villet, 2017).

Defined by the World Health Organization (2010) as “abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life,” life skills encompass creativity, decision-making, and self-awareness competencies that empower learners to navigate personal and social challenges with resilience. Through these skills, young people gain clarity about their identity, aspirations, and capacity to respond to both personal struggles and the needs of those around them.

LITERATURE REVIEW

Significant efforts have been made to offer teacher professional development. Yet these initiatives are not adequately enhancing teacher pedagogical skills (Darling-Hammond et al., 2017; Kang et.al., 2013; Banilower et.al., 2007). Studies on the effectiveness and sustainability of existing in-service teacher professional development have shown quite disappointing results. Teachers who have participated in such initiatives have often made cosmetic changes in their instructional practices or reverted completely to their “old ways” after support for the initiative has come to an end (Hubers et al. 2017; Wolthuis, 2020; Vaan Veen et al. 2010).

Even where teachers want to continue practicing the acquired skills, there has been a lack of a structured framework for monitoring implementation. In most cases, since the training takes place outside the school, trained teachers have found it difficult to link the concepts they acquired during the training to the school context. Moreover, teachers often do not effectively participate in the professional development programmes. As a result, the teachers continue to face challenges in classroom application (Hardman et al., 2011; Hunzicker, 2011; Harry, 2016). Njihia (2020).

The contextual factors that limit teachers’ participation in effective professional development programmes vary across countries. In Kenya, teachers reported that existing programmes were often poorly designed and lacked qualified facilitators. Teachers perceived such programmes as low quality and irrelevant (Harrison et. al., 2022; Kariuki et.al., 2024). According to UNESCO (2020), opportunities for teachers to participate in professional development were often disproportionate and skewed towards male teachers.

In Tanzania, where nearly 48% of the primary school teachers were female (World Bank 2023), a gender gap persists in the nationwide implementation of a teacher professional development program called “MEWAKA” (which means in Kiswahili Mafunzo Endelevu ya Walimu Kazini). The low participation of female teachers in the program was associated with family responsibilities, social norms, and digital access (Komar et.al., 2024). The additional social responsibilities on female teachers as compared to their male counterparts made them not prioritize technology.

Education is often seen as society’s equalizer (Singh et.al. 2020). Yet for years, the exclusion of many learners with learning challenges and those from low socioeconomic backgrounds has remained a problem in many countries. Studies have shown that teachers face challenges regarding inclusive education. Lack of professional training in dealing with students with disabilities is one of the obstacles to success in education (Imaniah & Fitria, 2018; Mag et al., 2017; Materechera, 2020).

School-Based In-Service Teacher Mentorship and Support

Kibabii university in collaboration with the university of Juba- South Sudan and Dar es Salaam university school of Education (DUCE) commissioned a project dubbed strengthening in –serve teacher training and mentorship (SITMS) Contrary to the cascade teacher professional development model, SITMS three-year project funded by the International Development and Research Center (IDRC) adopts an innovative school based approach to enhance capacity of primary school teachers to effectively teach mathematics and science subjects.

The SITMS pilot addresses the challenge of low teacher pedagogical competence through school-based in-service teacher mentorship and support. The approach involves training college tutors to train and mentor teacher and subsequently the trained teachers will train, coach, and mentor their fellow teachers. The SITMS adopts an innovative approach known as strengthening in-service teacher training (SITT). Through this approach, teachers are mentored on nine elements: team teaching, pupil participation, use of local resources, peer learning, and model lessons. Other elements of the SITT are health and environment, integration of ICT in teaching and learning, practice-based learning, and inclusive teaching and learning.

Purpose of the study

The purpose of the study was to investigate how innovative school-based in-service teacher mentorship and support programs can enhance teacher competence and pedagogical effectiveness, thereby contributing to improved teaching quality, student learning outcomes, and sustainable education reforms.

Objectives of the study

The specific objectives of the study were to;

- i. Establish the effect of school-based teacher mentorship and support on teacher competence in inclusive instructional practices and team teaching.
- ii. Examine the impact of school-based teacher mentorship and support on teacher competence in the integration of ICT in teaching and learning.
- iii. Determine the effect of school-based teacher mentorship and support on teacher competence in teaching life skills.

METHODOLOGY

The pilot study adopted a mixed-methods design and was implemented over 5-6 months in 35 schools targeting grade 6 teachers. Interviews, Focus Group Discussions, and self-administered questionnaires were used. A baseline survey was conducted in the 35 schools to establish initial levels of teacher competence in selected domains. A post intervention evaluation was conducted in the sixth month to measure progress and identify shifts attributable to the intervention. Quantitative data were analyzed using descriptive statistics, specifically frequencies and percentages, and presented visually in figures to highlight comparative trends between baseline and mid-term findings.

Qualitative data were analyzed thematically, with emergent themes organized around key areas of teacher competence, and reported verbatim to preserve the authenticity of teacher voices. The schools were organized into seven clusters, each comprising five schools. Every cluster was assigned a Teacher Training College (TTC) to serve as a mentor institution for a period of two school terms (approximately six months). The mentors received training on the SITT elements, comprising team teaching, use of locally available resources, learner participation, integration of ICT in teaching and learning, inclusive education, and model lessons. The mentors then proceeded to train teachers (three for each of the 35 schools). Teachers subsequently cascaded the knowledge to their colleagues within their respective schools.

The teachers were allowed to practice the SITT elements in the classroom context. Periodic mentorship supported the implementation. Mentorship sessions enabled teachers to address challenges. When necessary, the mentors conducted model lessons which enabled teachers to observe effective strategies for teaching complex concepts in mathematics, science, and life skills, thereby strengthening classroom practice and professional growth.

FINDINGS AND DISCUSSIONS

Evidence from the baseline survey revealed that teachers exhibited low competence in inclusive instructional practices, integrating ICT in teaching and learning, team teaching, and teaching of life skills.

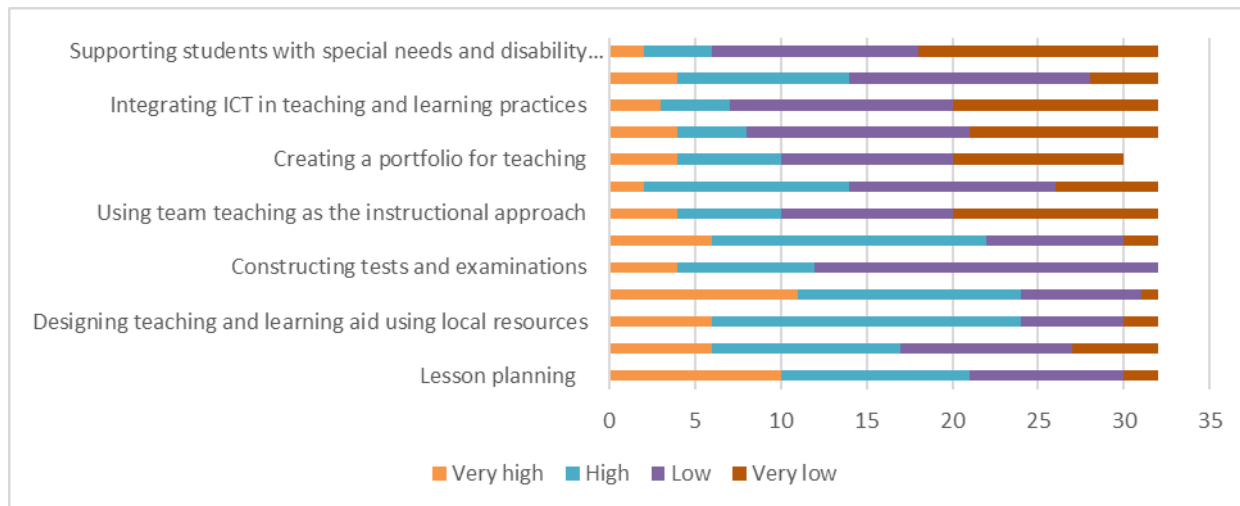


Figure 1. Teacher instructional competence before STMS pilot

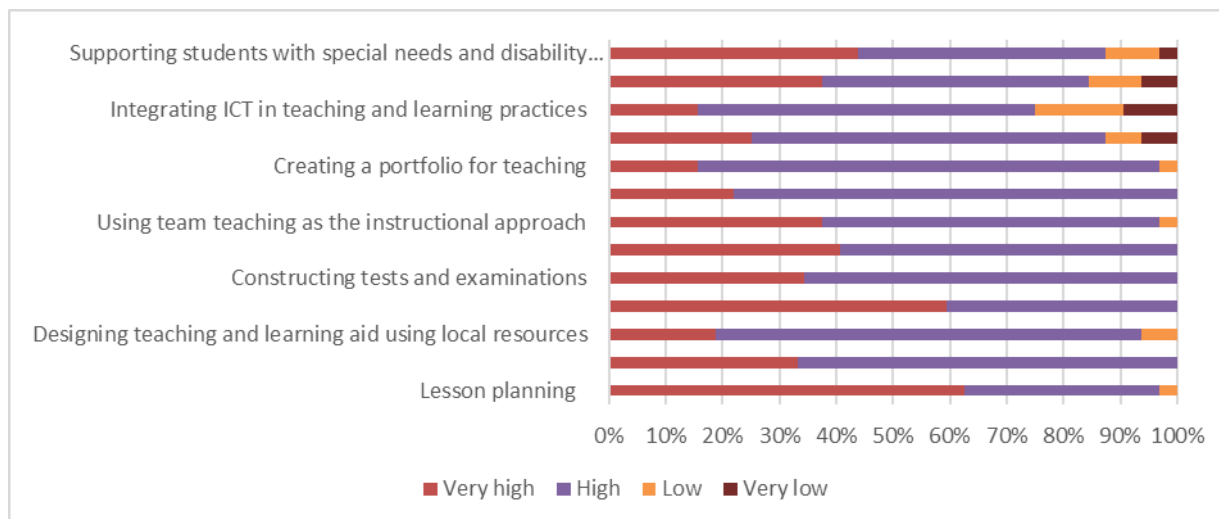


Figure 1. Teacher instructional competence after STMS pilot

Prior to the pilot, teachers’ self-assessment indicated widespread competence gaps. For instance, in supporting students with special needs and disabilities, only 11.4% of teachers who participated in the pilot rated their competence as high or very high (Figure 1). A substantial proportion (88.6%) fell into the low or very low categories. The findings of the study demonstrated that SITMS caused a dramatic shift. In supporting students with special needs, the proportion of teachers reporting high or very high competence after the pilot rose to 57%, marking a significant improvement from the baseline. These gains reflect the transformative potential of school-based mentorship-driven professional development. This aligns with the global call to strengthen teacher capacity to deliver inclusive and equitable quality education (UNESCO, 2024)

The findings displayed in Figures 1 and 2 suggest that teacher competence in team teaching also improved significantly after SITMS. Before, most teachers reported low or very low competence. Only 22.9% demonstrated high or very high competence in team teaching. After SITMS, 71.5% reported high or very high competence levels. This represents a 212.4% increase in high competence ratings overall. The intervention reduced low competence ratings from 77% to 28.5%. Such improvement highlights the effectiveness of school-based mentorship support in fostering collaborative teaching practices. The findings demonstrate how the pilot catalyzed a cultural shift toward collegiality in classrooms.

The findings of this study, based on the focus group discussions and interviews with teachers underscored the historical challenges they faced in delivering life skills education, citing limited pedagogical strategies and inadequate training. Prior to the SITMS intervention, teachers perceived life skills as abstract concepts that were difficult to translate into meaningful classroom practice, resulting in low confidence and limited student engagement. Prior to the STMS pilot, only 22.9% of teachers reported high or very high competence in teaching life skills, with 77.1% indicating low or very low proficiency. This was corroborated by the teachers' responses during the FDG and interview sessions. One teacher reflected, "Before the training, I did not know how to make life skills practical for my students. Life skills were so abstract without connection to their lives. (Interview in school 1)." Another added, "We were aware of the importance of life skills, but lacked confidence and strategies to teach them." (Interview in school 2)

The introduction of the school-based teacher mentorship and support markedly shifted the landscape. The post-pilot findings suggested that school-based mentorship and support had enabled teachers to bridge the gap between theory and practice. As one teacher explained, "Now I feel adequately prepared. I can design lessons that engage learners in real-life problem-solving and self-reflection." Another teacher emphasized, "The mentorship has helped me see life skills not as an extra subject, but as part of everyday teaching. My students are more engaged and open."

As for the integration of ICT in teaching and learning, the baseline survey showed that teacher competence was notably low. According to the findings displayed in Figure 1, a small fraction of teachers rated their competence as "very high" (approximately 2.9%) or "high" (around 8.6%), while the majority of the teachers fell into the "low" (about 31.4%) and "very low" (roughly 22.9%) categories. These findings reflected a significant gap in digital pedagogical readiness, with over 54% of teachers expressing limited or very limited ability to use ICT tools effectively in their instructional practices. The findings, therefore, underscore the need for targeted professional development and support to enhance digital integration in classrooms.

Following the SITMS pilot, findings presented in Figure 2 revealed a substantial improvement in teacher competence regarding ICT integration. After the pilot, the proportion of teachers rating their competence as "very high" rose to approximately 28.6%, while those reporting "high" increased to 42.9%. This marked a combined increase of 60% in the upper competence tiers; a dramatic shift from the pre-intervention total of just 11.5%. Conversely, the "low" category dropped to 22.9%, and "very low" ratings fell sharply to 5.7%, indicating a 17.2% reduction in the lowest competence levels. These changes suggested that the SITMS pilot had a transformative impact, equipping teachers with the skills and confidence to embed ICT meaningfully into their classroom practice. The shift from a majority of teachers feeling underprepared to a majority feeling highly competent reflected the success of the intervention.

POLICY IMPLICATIONS AND RELEVANCE IN SUB-SAHARAN AFRICA EDUCATION SYSTEMS

For Sub-Saharan Africa more broadly, SITMS provides a model that can be adapted to national contexts while contributing to continental and global goals, including UNESCO's SDG4 agenda on inclusive and equitable quality education. By situating teacher development within the realities of classroom practice, SITMS demonstrates how localized interventions can drive systemic improvements in teacher competence and student learning outcomes, reinforcing both national and regional education reform agendas.

The findings also resonate with UNESCO's ICT Competency Framework for Teachers (2023), which advocates embedding technology skills into teacher training to prepare educators for modern, tech-enabled classrooms. The results also support broader evidence from OECD (2024), the World Bank (2024), and GPE (2024), which highlight mentorship, collaborative learning, and context-sensitive support as critical levers for improving teacher quality and student outcomes. The SITMS model, by fostering reflective practice and peer learning, appears to have catalyzed meaningful shifts in teacher confidence and classroom innovation.

ACKNOWLEDGMENTS

The author wishes to sincerely thank the International Development Research Center (IDRC) for the generous grant that made this study successful. Whereas the study was fully funded by IDRC, the funder is not responsible for any ideas expressed in this study. Many thanks to the Kibabii University management for their support. I also wish to thank the SITMS project team led by the PI, Dr. Katherine Fulgence, from Dar es Salaam University College of Education (DUCE), and the Co-PI, Prof. Julius Maiyo, from Kibabii University.

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