



Research Article

Quality Assurance and Professional Development in Teacher Training Colleges in Tanzania: A Systematic Literature Review (2020–2025)

^aPontion Audax, ^bKalafunja Osaki, ^bProsperity M. Mwila

^a Department of Education Foundations, Saint Augustine University of Tanzania (SAUT)-Dar Centre.

^b Academician, School of Graduate Studies, Saint Augustine University of Tanzania (SAUT)-Dar Centre.

*Correspondence: pontionaudax@gmail.com

Article History

Received: August 28, 2025

Accepted: October 24, 2025

Published: November 12, 2025

Abstract

This study presents a systematic review of literature on the intersection between professional development and quality assurance in teacher training colleges in Tanzania. The review responds to persistent concerns that despite policy reforms and institutional expansion, the quality of teacher education remains inconsistent, largely due to deficiencies in professional competence, institutional capacity, and systemic coherence. Guided by the theoretical perspectives of Total Quality Management (TQM) and Human Capital Theory (HCT), the review analyzed empirical and conceptual studies published between January 2020 and September 2025. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, studies were retrieved from Scopus, Web of Science, ERIC, and IEEE Xplore, yielding twenty-one articles that met the inclusion criteria. Data were appraised using the Critical Appraisal Skills Programme (CASP) checklist and analyzed thematically. Three dominant themes emerged: the professional preparation and competence of teacher educators, the institutionalization of quality assurance mechanisms, and the role of institutional support and continuous learning. In direct response to the research questions, the findings indicate that Tanzanian teacher training colleges implement quality assurance through formal but largely compliance-oriented mechanisms, which are poorly integrated with developmental goals. Furthermore, models of professional development that most effectively support quality enhancement are those embedded within institutional culture—such as peer learning, mentorship, and action research—rather than sporadic, externally driven workshops. The study concludes that fostering a sustainable quality culture requires an integrated approach in which professional learning and institutional accountability operate as interdependent processes, mutually reinforcing continuous improvement and educational excellence.

Keywords: Professional development, Quality assurance, Tanzania, Teacher education, Total Quality Management.



Copyright: © 2025 by the authors.
Licensee Roots Press, Islamabad
Pakistan.

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Introduction

Teacher education remains a central pillar in the architecture of educational quality and national development. Across the globe, the evolution of teacher education has been shaped by recurring paradigms of reform aimed at professionalizing the teaching force and establishing robust systems of accountability. Since the late twentieth century, quality assurance has become a defining feature of educational governance, adapted from industrial

management models to safeguard efficiency, transparency, and effectiveness in education systems (Cheng & Tam, 1997; Sallis, 2014). Within the broader discourse of education reform, the pursuit of quality has progressively moved from quantitative expansion toward qualitative transformation, emphasizing the competence and continuous professional development of teachers as indispensable to educational excellence (Darling-Hammond, 2017; UNESCO, 2022). In Sub-Saharan Africa, international commitments such as the World Declaration on Education for All (1990) and the Dakar Framework for Action (2000) redefined educational goals by embedding quality as a prerequisite for universal access. This continental focus elevated the role of teacher educators, who not only facilitate the preparation of teachers but also influence pedagogical innovation and instructional quality (Cochran-Smith et al., 2020). Nevertheless, the professional preparation, career development, and scholarly engagement of teacher educators remain unevenly structured, particularly within developing contexts marked by limited resources, policy discontinuities, and fragile institutional capacity (Livingston, 2023; Murray, 2022).

The trajectory of teacher education reform in Tanzania illustrates the dynamic interplay between expansion, quality, and systemic regulation. From the Education and Training Policy of 1995 to the ongoing Education Sector Development Plan (2021–2026), governmental initiatives have sought to democratize access while instituting mechanisms for safeguarding educational quality (URT, 2021). The liberalization of higher education in the 1990s precipitated a rapid proliferation of teacher training colleges (TTCs), increasing their number from 34 in 1995 to over 120 by 2013 (MoEVT, 2013). While this expansion enhanced the supply of trained teachers, it simultaneously generated new complexities in maintaining consistency, coherence, and accountability across institutions. Empirical evidence indicates persistent weaknesses in institutional governance, instructional supervision, and faculty development structures (Wedgwood, 2019; Chambulila, 2023). The proliferation of TTCs, particularly private and semi-autonomous ones, has not been matched with corresponding investments in quality assurance mechanisms, professional standards, and capacity-building frameworks (Kafyuliilo & Rugambuka, 2021; Stutchbury, Mutemeri, & Mwabumba, 2022). Consequently, disparities in instructional quality, limited scholarly productivity, and fragmented professional growth pathways continue to undermine the integrity of teacher education provision (TCU, 2023; URT, 2024). These systemic constraints underscore the need for a sustained, evidence-informed approach to quality assurance that is integrally linked with the professional development of teacher educators.

Conceptually, quality assurance in education represents a multidimensional construct encompassing the design, delivery, and evaluation of educational processes to ensure that outcomes align with predetermined standards (Harvey & Green, 1993; Sallis, 2014). Within the context of teacher education, it entails establishing and maintaining mechanisms through which teacher preparation programs produce competent professionals capable of meeting national and international benchmarks. Professional development, conversely, is conceived as a structured and continuous process of growth through which teacher educators enhance their pedagogical, research, and reflective capacities (Kennedy, 2016; Opfer & Pedder, 2011). The intersection between these two constructs is inherently symbiotic: quality assurance provides the evaluative framework that defines expectations of professional competence, while professional development serves as the transformative process through which those

standards are attained and sustained. Contemporary scholarship underscores the inadequacy of compliance-oriented quality assurance models that prioritize bureaucratic audit functions over developmental engagement (Tikly & Barrett, 2021). Instead, a shift toward participatory and developmental paradigms is advocated-where quality is conceived not merely as external conformity but as a cultivated culture of continuous improvement embedded within professional learning communities (Cochran-Smith et al., 2020; Murray, 2022). This conceptual reconceptualization is particularly critical in the Tanzanian context, where teacher education institutions are navigating the dual pressures of policy reform and resource scarcity.

Empirically, the Tanzanian teacher education landscape is characterized by heterogeneity in institutional capacity, pedagogical quality, and adherence to quality assurance standards. Both public and private TTCs are formally regulated by the Tanzania Commission for Universities (TCU) and the National Council for Technical Education (NACTE), bodies mandated to oversee accreditation and institutional quality. However, multiple studies conducted between 2020 and 2025 reveal persistent implementation gaps that compromise the effectiveness of these frameworks (Stutchbury et al., 2022; Chambulila, 2023). Quality assurance units within many colleges exist in form but not in function, constrained by limited human and material resources, inconsistent supervision, and inadequate funding (Kafyuliilo & Rugambuka, 2021; URT, 2024). Additionally, professional development opportunities for teacher educators remain sporadic, donor-dependent, and often misaligned with institutional needs (Mnkandla & Kahangwa, 2023; UNESCO, 2024). The rapid digitalization of education precipitated by the COVID-19 pandemic further exposed systemic fragilities, particularly in the integration of technology-enhanced teaching and assessment. Mnkandla and Kahangwa (2023) observed that while some colleges transitioned to blended modes of instruction, many educators lacked the requisite digital literacy and pedagogical adaptability to ensure instructional quality. Collectively, these findings suggest that Tanzania's teacher education system continues to grapple with a compliance-driven conception of quality assurance, where external inspection outweighs developmental support. Bridging this gap necessitates a paradigm that views quality not as a static checklist but as an evolving institutional culture nourished by sustained professional learning.

This study is anchored in the complementary theoretical perspectives of Total Quality Management (TQM) and Human Capital Theory (HCT), both of which provide an integrative lens through which the relationship between professional development and quality assurance may be understood. Total Quality Management, originally advanced by Deming (1986) and later extended to educational contexts by Cheng & Tam (1997) and Sallis (2014), emphasizes continuous improvement through stakeholder participation, systemic accountability, and evidence-based practice. Within teacher education, TQM advocates a holistic perspective in which all institutional processes-from curriculum design to pedagogical practice and assessment-are coherently aligned to promote continuous enhancement. It redefines quality assurance from an external evaluative exercise to an internalized institutional ethos, positioning teacher educators as both agents and beneficiaries of quality enhancement (Tikly & Barrett, 2017; TCU, 2023).

This study is anchored in the complementary theoretical perspectives of Total Quality Management (TQM) and Human Capital Theory (HCT). TQM, extended to education,

emphasizes continuous improvement and redefines quality assurance as an internalized institutional ethos (Sallis, 2014). HCT conceptualizes professional development as a strategic investment in human capital that yields returns in educational productivity (Becker, 1964). Synthesized, they provide a dual lens: TQM elucidates the necessary institutional systems for quality, while HCT explicates the individual-level competencies and growth that underpin them. Despite this theoretical synergy and ongoing policy reforms in Tanzania, a significant research gap persists. Empirical evidence indicates that quality assurance mechanisms in teacher training colleges remain compliance-oriented and bureaucratically separate from the fragmented, ad-hoc professional development opportunities for educators (Kafyuliilo & Rugambuka, 2021; Stutchbury et al., 2022). There is insufficient systematic analysis of how these two critical domains, institutional accountability and human capacity development, intersect and can be mutually reinforced in practice.

Against this gap, the present study systematically examines this intersection in Tanzanian teacher training colleges (2020–2025). It is guided by the objectives to: examine the structures and effectiveness of quality assurance systems; assess the nature and impact of professional development initiatives; and explore how professional development functions as a tool for enhancing quality assurance. The study is directed by two research questions: How do Tanzanian teacher training colleges implement and sustain quality assurance mechanisms in relation to professional development? What models of professional development most effectively support the enhancement of quality in teacher educator practice? The answers are expected to illuminate the dynamic interdependence between system-level accountability and professional learning, offering evidence-informed implications for strengthening teacher education quality in Tanzania and comparable contexts.

Literature review

Theoretical review

The contemporary discourse on teacher education increasingly situates professional development and quality assurance as twin imperatives for educational transformation. Within the theoretical domain, Total Quality Management (TQM) and Human Capital Theory (HCT) provide the conceptual scaffolding through which this relationship can be systematically interrogated. The intellectual roots of TQM in education lie in Deming's (1986) philosophy of continuous improvement and stakeholder participation. Transposed into educational settings, TQM advocates for a systemic, process-oriented approach to institutional enhancement, wherein quality is not confined to output measures but is embedded in every phase of the teaching-learning process (Cheng & Tam, 1997; Sallis, 2014). Theoretically, TQM challenges the traditional dichotomy between external accountability and internal development by positing that quality assurance must function as a self-sustaining culture rather than a regulatory imposition (Tikly & Barrett, 2017). Within teacher education, this implies that colleges should evolve from compliance-based evaluation models toward integrative systems where curriculum design, faculty development, and pedagogical innovation operate synergistically under shared principles of continuous improvement. The strength of TQM as a theoretical lens lies in its ability to conceptualize quality as a collective institutional responsibility rather than an isolated administrative mandate.

Human Capital Theory (HCT) complements TQM by extending the analysis to the micro-level of individual development and institutional productivity. Originating from the economic theories of Becker (1964) and Schultz (1971), HCT frames education and training as investments that yield measurable returns in productivity, efficiency, and innovation. When applied to teacher education, HCT underscores the professional development of teacher educators as a strategic investment in the intellectual capital that sustains institutional quality (Psacharopoulos & Patrinos, 2018). The professional competence, reflective capacity, and pedagogical adaptability of teacher educators collectively determine the value of the educational enterprise (Livingston, 2023). Consequently, professional development ceases to be a peripheral activity and becomes the central mechanism through which institutions enhance both performance and accountability. Recent scholarship reinforces this nexus, arguing that institutional quality is contingent upon the professional growth of those who design and deliver teacher education programs (Murray, 2022; Cochran-Smith et al., 2020). In this regard, HCT operationalizes TQM's abstract principles by grounding them in human development processes that sustain institutional excellence. Together, the two frameworks provide a multidimensional interpretive structure: TQM explicates how institutions organize for quality, while HCT explains how individuals contribute to and benefit from these quality structures through continuous learning.

The synthesis of TQM and HCT has become particularly salient in the discourse on teacher education reform in developing countries, where quality assurance systems are often externally imposed and inadequately linked to faculty capacity building. Scholars such as Tikly and Barrett (2021) and UNESCO (2022) argue that effective quality assurance must transcend mechanistic evaluation to foster a professional culture that values inquiry, reflection, and collaborative learning. In this sense, professional development is not merely a human resource strategy but an epistemic process through which teacher educators construct and reconstruct knowledge within a framework of institutional quality. In Tanzania, this theoretical integration is especially relevant given the enduring challenges of policy coherence, institutional resourcing, and workforce development. The current Education Sector Development Plan (URT, 2021) acknowledges that professional development and quality assurance are mutually reinforcing pillars of educational improvement. Yet, as empirical evidence suggests, this theoretical synergy has yet to be fully realized within the country's teacher training colleges, where quality remains narrowly construed as compliance with external standards rather than as the outcome of an evolving professional learning culture.

Empirical Review

Empirical studies conducted in Tanzania between 2020 and 2025 reveal both progress and persistent gaps in aligning professional development with quality assurance mechanisms. Kafyuliilo and Rugambuka (2021) found that while many colleges have established quality assurance committees, their operational effectiveness is often undermined by limited staff competence, irregular funding, and fragmented institutional planning. Similarly, Stutchbury, Mutemeri, and Mwabumba (2022) observed that most colleges lack structured professional development frameworks, relying instead on ad hoc

workshops and externally sponsored short courses that seldom translate into long-term pedagogical improvement. The quality assurance processes that do exist tend to emphasize compliance audits and documentation rather than formative feedback or reflective practice. This results in a culture of accountability that privileges procedural conformity over transformative professional learning (Chambulila, 2023).

Further empirical evidence underscores the structural and pedagogical dimensions of these challenges. Mnkandla and Kahangwa (2023) reported that the COVID-19 pandemic accelerated the digitalization of teaching and learning but also magnified inequalities in technological readiness among teacher educators. While a few institutions integrated online platforms and blended learning models, many struggled with inadequate infrastructure and limited digital competence. These findings resonate with broader regional research by UNESCO (2024), which noted that quality assurance in Sub-Saharan African teacher education systems remains largely reactive, focusing on periodic evaluation rather than continuous professional growth. The Tanzanian context, in particular, reflects an ongoing struggle to institutionalize professional development as a core function of quality assurance systems rather than as a supplementary or remedial intervention. This disconnect has profound implications for the sustainability of teacher education reform, as it constrains the emergence of a professional culture grounded in innovation, collaboration, and reflective inquiry.

Despite these challenges, emerging models of practice offer promising insights. Studies by Chambulila (2023) and the Tanzania Commission for Universities (TCU, 2023) highlight efforts to integrate professional development within institutional quality frameworks through internal mentoring programs, peer observation, and collaborative action research. These initiatives demonstrate that quality assurance can serve as a developmental process when embedded within participatory structures that value educator agency and professional dialogue. Similarly, Livingston (2023) underscores the importance of establishing professional learning communities that bridge the gap between policy and practice, enabling teacher educators to co-construct standards of excellence rather than merely comply with externally defined indicators. These innovations reflect a gradual paradigm shift from hierarchical regulation toward collegial professionalism, aligning closely with the principles of Total Quality Management and Human Capital Theory. Nonetheless, as URT (2024) cautions, sustaining these practices requires systemic investment in institutional autonomy, research capacity, and leadership development.

Collectively, the empirical evidence from 2020 to 2025 paints a nuanced picture of Tanzanian teacher education: a sector in transition, grappling with the demands of quality assurance while striving to cultivate a culture of continuous professional learning. While policy frameworks articulate the interdependence between professional development and quality assurance, implementation remains constrained by structural, cultural, and resource limitations. The literature thus converges on a central insight: that the enhancement of teacher education quality in Tanzania depends not merely on refining regulatory systems but on embedding professional development within the everyday practices, values, and identities of teacher educators. In this respect, the integration of TQM and HCT provides both a theoretical rationale and a practical

pathway for transforming quality assurance from an externally driven requirement into an internally sustained culture of excellence.

Methodology

This study adopted a systematic literature review (SLR) design guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to consolidate evidence on professional development and quality assurance in Tanzanian teacher training colleges (Moher et al., 2009; Page et al., 2021). The review focused on literature published between January 2020 and September 2025 to capture reforms aligned with Tanzania's Education Sector Development Plan (URT, 2021). Searches across Scopus, Web of Science, ERIC, and IEEE Xplore used Boolean combinations of keywords such as "teacher professional development," "quality assurance," and "Tanzania." Studies were included if published in English, focused on teacher education, and explicitly addressed quality assurance, professional development, or their intersection. To ensure contextual relevance while incorporating regional insights, studies from comparable Sub-Saharan African contexts were considered only if they examined systems facing similar structural challenges, specifically, post-colonial systems undergoing massification while implementing formal quality assurance amid resource constraints. Editorials and non-peer-reviewed works were excluded.

The selection process followed the PRISMA 2020 flow. Database searches yielded 184 records. After removing 63 duplicates, 121 records were screened by title and abstract, leading to the retrieval of 45 full-text articles for eligibility assessment. Ultimately, 21 studies met all inclusion criteria. The primary reasons for excluding 24 articles at the full-text stage were lack of direct relevance to the core themes (n=11), focus on a non-comparable national context (n=7), inappropriate study design (n=4), and inaccessible full text (n=2).

The methodological rigor and credibility of the 21 retained studies were appraised using an adapted Critical Appraisal Skills Programme (CASP) checklist, evaluating clarity of objectives, design coherence, data validity, and relevance to the review's theoretical framework of Total Quality Management (TQM) and Human Capital Theory (HCT). No studies were excluded based on this appraisal; instead, it informed the analytical weighting of the evidence. Data extraction employed a standardized matrix to capture bibliographic details, methodological features, and key findings. Thematic synthesis, following Braun and Clarke's (2019) approach, was then used to interpret the data. This involved generating deductive codes from TQM and HCT principles (e.g., continuous improvement, capacity building) alongside inductive codes from recurring findings, ultimately organizing results into convergent analytical themes.

Throughout the process, ethical standards were maintained to ensure proper attribution. To enhance linguistic precision and stylistic consistency, the final manuscript underwent academic language refinement using ChatGPT (OpenAI, 2025 edition) as an auxiliary tool for clarity, without altering analytical integrity. This detailed, PRISMA-guided methodological process ensured transparency, replicability, and theoretical congruence, with the synthesized evidence informing the findings presented next.

Results

The findings of this systematic review reveal three interrelated themes that collectively illustrate the complex relationship between professional development and quality assurance in Tanzanian teacher training colleges. These are: (1) the initial preparation and professional competence of teacher educators, (2) the implementation and institutionalization of quality assurance mechanisms, and (3) the role of institutional support, research culture, and continuous professional learning. Together, these themes reflect both systemic challenges and emerging opportunities for strengthening the quality of teacher education through coherent, evidence-informed practices.

Initial Preparation and Professional Competence of Teacher Educators

The first theme concerns the initial preparation and professional competence of teacher educators, which emerged as a foundational determinant of institutional quality and a decisive factor in the success of quality assurance initiatives. The reviewed studies (Kafyuliilo & Rugambuka, 2021; Chambulila, 2023; UNESCO, 2024) consistently reveal that while Tanzania has significantly expanded access to teacher education, disparities in the professional capacity of teacher educators remain striking. Many institutions continue to rely on tutors and lecturers whose academic qualifications do not always align with the specialized demands of contemporary teacher education. The findings show that the majority of teacher educators were trained under traditional models that emphasize content mastery and procedural teaching methods, with limited exposure to reflective practice, digital pedagogy, or action research. Consequently, a large segment of the teaching workforce lacks the adaptive expertise needed to respond to evolving educational contexts and quality assurance requirements.

This condition underscores a central paradox: while the expansion of teacher education has increased the supply of instructors, it has not proportionally enhanced their pedagogical or research capacity. The review indicates that the curriculum for preparing teacher educators remains fragmented and insufficiently aligned with the standards set by the Tanzania Commission for Universities (TCU) and the National Council for Technical Education (NACTE). As a result, quality assurance audits often highlight deficiencies in instructional methods, curriculum delivery, and assessment strategies (URT, 2024). From a theoretical perspective, this theme vividly demonstrates the Human Capital Theory proposition that meaningful investment in human competence yields measurable institutional returns (Becker, 1964; Schultz, 1971). Where teacher educators lack systematic preparation, institutional performance inevitably suffers.

The implications of this finding are multifold. First, professional competence should be viewed not as an individual attribute but as an institutional asset one that must be continuously cultivated through structured professional development. Second, policies should prioritize the professionalization of teacher educators through graduate-level preparation, mentorship, and collaborative learning opportunities. Third, quality assurance systems must move beyond procedural inspection to assess the actual pedagogical capacity of educators. The evidence suggests that when teacher educators engage in targeted professional learning particularly in areas such as reflective practice, curriculum design, and educational technology the overall institutional quality improves

(Livingston, 2023). Thus, enhancing initial preparation and competence is not only a prerequisite for quality assurance but the cornerstone of sustainable educational improvement in Tanzania.

Implementation and Institutionalization of Quality Assurance Mechanisms

The second theme focuses on the implementation and institutionalization of quality assurance mechanisms within teacher training colleges. The reviewed literature (Stutchbury, Mutemeri & Mwabumba, 2022; TCU, 2023; URT, 2024) reveals that although most institutions possess formal structures such as quality assurance committees, self-assessment teams, and external audit systems, these mechanisms are often poorly operationalized. Many of these bodies exist primarily for compliance with regulatory requirements rather than as engines of institutional transformation. The processes remain hierarchical, documentation-heavy, and event-based, which limits their developmental potential. For instance, audits are typically conducted as one-time evaluations rather than as part of an ongoing cycle of planning, implementation, reflection, and improvement. This bureaucratic orientation not only marginalizes teacher educators from decision-making but also fosters a culture of compliance rather than commitment.

From the lens of Total Quality Management (TQM), this situation reveals a partial and superficial adoption of quality assurance principles. The essence of TQM lies in embedding continuous improvement into institutional culture through participation, reflection, and evidence-based decision-making (Deming, 1986; Sallis, 2014). However, the findings indicate that Tanzanian teacher training colleges often prioritize external control over internal learning. Institutional managers tend to perceive quality assurance as an administrative obligation, while academic staff regard it as an intrusive audit process. This disjunction constrains organizational learning and diminishes ownership of quality processes. Conversely, institutions that have begun to implement participatory quality assurance practices such as peer review, collaborative self-assessment, and internal benchmarking demonstrate greater adaptability, transparency, and staff motivation (Tikly & Barrett, 2021).

The challenges identified in this theme also highlight issues of policy coherence and resource dependency. Most quality assurance systems operate under the dual oversight of TCU and NACTE, leading to overlapping mandates and inconsistent standards across institutions. Additionally, financial constraints and limited technical expertise hinder regular monitoring and follow-up on quality improvement plans (URT, 2024). Yet, within these limitations, some colleges have initiated innovative practices that align with the developmental spirit of TQM. For example, a few institutions have introduced participatory quality circles and internal mentorship models, fostering a sense of collective accountability among staff. These localized practices affirm that quality assurance can be a dynamic process of institutional self-renewal when educators are empowered to define and pursue quality collaboratively.

Overall, this theme illustrates that institutionalizing quality assurance in Tanzanian teacher training colleges requires a paradigmatic shift from externally imposed accountability toward internally driven improvement. Quality must be understood as an emergent property of institutional culture, not a static outcome of inspection. When

teacher educators actively engage in quality processes as reflective professionals, quality assurance transcends its procedural form to become a lived ethos of practice. This shift is consistent with the principles of TQM, which call for holistic engagement, leadership commitment, and shared responsibility across all organizational levels.

Institutional Support, Research Culture, and Continuous Professional Learning

The third theme emphasizes the indispensable role of institutional support, research culture, and continuous professional learning in sustaining quality within teacher education. Evidence from the reviewed studies (Mnkandla & Kahangwa, 2023; Livingston, 2023; UNESCO, 2024) reveals that quality assurance is most effective when embedded within supportive environments that promote professional growth, innovation, and scholarly inquiry. However, in Tanzania, many teacher training colleges continue to operate under constrained conditions marked by inadequate funding, limited research capacity, and insufficient professional development infrastructure. The absence of structured research programs and incentives for scholarly engagement has contributed to low research productivity among teacher educators. As a result, institutional improvement efforts often lack empirical grounding, reducing quality assurance to a technical rather than knowledge-driven process.

The COVID-19 pandemic further exposed the fragility of institutional support systems, especially in relation to digital readiness and instructional adaptability. Mnkandla and Kahangwa (2023) found that while several colleges attempted to implement blended and online learning modalities, most lacked the technological infrastructure, policy guidance, and professional competence required for effective delivery. This gap underscores a critical dimension of quality assurance the need for systemic investment in technological and pedagogical innovation. Despite these challenges, the review identifies promising practices, such as the emergence of professional learning communities, internal mentorship programs, and peer-led workshops. These initiatives have enhanced collegial collaboration and reflective practice, thereby integrating professional development into institutional culture.

From a theoretical standpoint, this theme exemplifies the synergy between Human Capital Theory and Total Quality Management. Continuous professional learning represents the human capital that drives institutional quality, while supportive structures and research engagement represent the systems-level mechanisms that sustain it (Becker, 1964; Sallis, 2014). When institutions create environments conducive to research, dialogue, and mentorship, they enable teacher educators to innovate, evaluate, and refine their practices. Conversely, when institutional support is weak or inconsistent, quality assurance devolves into a bureaucratic routine with limited developmental impact. The reviewed literature suggests that fostering a robust research culture not only strengthens accountability but also nurtures intrinsic motivation among teacher educators to pursue excellence.

The implications of this theme are profound. Institutional leaders must recognize that sustainable quality is inseparable from the professional well-being and intellectual empowerment of their staff. Investments in professional learning, digital competence, and research engagement should be integrated into institutional strategic plans rather

than treated as discretionary initiatives. Moreover, national quality assurance frameworks must incorporate metrics that assess not only compliance but also institutional learning capacity, innovation, and research output. By aligning professional development with institutional goals, Tanzanian teacher training colleges can cultivate a culture of excellence in which quality assurance becomes an organic, self-renewing process rather than an externally imposed expectation.

In synthesis, the three themes collectively reaffirm that professional development and quality assurance are mutually constitutive and interdependent. Structural frameworks of quality assurance provide accountability and coherence, while professional development ensures the competence, motivation, and reflective capacity necessary to operationalize those frameworks. The reviewed literature demonstrates that quality in Tanzanian teacher education cannot be legislated through policy alone; it must be nurtured through the deliberate cultivation of professional learning cultures. Integrating the principles of Total Quality Management and Human Capital Theory provides a conceptual pathway for achieving this integration, where institutional systems and human capacities evolve in tandem to sustain continuous improvement.

Conclusion and Recommendations

This systematic review has demonstrated that the enhancement of teacher education quality in Tanzania is inextricably linked to the professional development (PD) of teacher educators and the institutionalization of coherent, participatory quality assurance (QA) systems. The evidence synthesized from studies published between 2020 and 2025 reveals that while Tanzania has made commendable progress in expanding teacher education and formalizing QA frameworks, significant challenges persist. These include compliance-oriented QA mechanisms that emphasize external audits over internal learning, and PD initiatives that are uneven, sporadic, and disconnected from institutional priorities. In practice, an integrated model for Tanzania would manifest as a cyclical, institutionally-embedded system where QA and PD are mutually reinforcing. This model would feature structured PD activities such as collaborative action research, peer review, and technology-integration workshops that are directly informed by the outcomes of internal QA audits and self-assessment reports. Conversely, the QA processes themselves would be designed as developmental exercises, facilitated by internal mentors and focused on generating formative feedback for professional growth plans, rather than merely producing compliance documentation. Theoretically, these findings affirm the interdependence proposed by Total Quality Management (TQM) and Human Capital Theory (HCT): sustainable educational quality arises when institutional systems and human capacities are developed concurrently. TQM emphasizes systemic alignment and evidence-based improvement, while HCT underscores investing in educator competence. Together, they highlight that QA cannot be achieved through regulation alone but must be internalized as a culture of excellence rooted in reflective, empowered professional practice.

In light of these findings, several key recommendations emerge for policy, practice, and research. First, Tanzania's teacher training colleges must reconceptualize QA as a developmental process, embedding mechanisms for peer learning, mentorship, and self-

assessment into institutional routines. National bodies such as TCU and NACTE should harmonize standards and provide capacity-building support to enable institutions to operationalize QA frameworks effectively. Second, PD should be institutionalized through structured programs that emphasize pedagogical innovation, research engagement, and digital literacy, with continuous investment in teacher educator competence. Third, policy reforms should promote institutional autonomy, resource adequacy, and leadership development to support internal quality cultures. Finally, future research should explore the longitudinal impact of integrated QA and PD models on teacher educator performance and student learning outcomes. In sum, the future of quality education in Tanzania depends on a deliberate synthesis of systemic accountability and professional empowerment—an equilibrium where institutions, educators, and policymakers collectively enact quality not as an imposed standard but as a shared professional ethos sustained through continuous reflection, learning, and innovation.

References

- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
- Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, 11(4), 589–597. <https://doi.org/10.1080/2159676X.2019.1628806>
- Chambulila, D. (2023). Teacher educators' professional competencies and the quality of teacher education in Tanzania. *Journal of Education and Practice*, 14(3), 55-68.
- Cheng, Y. C., & Tam, W. M. (1997). Multi-models of quality in education. *Quality Assurance in Education*, 5(1), 22–31. <https://doi.org/10.1108/09684889710156558>
- Cochran-Smith, M., Villegas, A. M., Abrams, L., Chavez-Moreno, L., Mills, T., & Stern, R. (2020). Research on teacher preparation: Charting the landscape of a sprawling field. *Educational Researcher*, 49(3), 204–216. <https://doi.org/10.3102/0013189X20909824>
- Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 40(3), 291-309. <https://doi.org/10.1080/02619768.2017.1315399>
- Deming, W. E. (1986). *Out of the crisis*. MIT Press.
- Harvey, L., & Green, D. (1993). Defining quality. *Assessment and Evaluation in Higher Education*, 18(1), 9-34. <https://doi.org/10.1080/0260293930180102>
- Kafyuliilo, A., & Rugambuka, I. (2021). Internal quality assurance mechanisms in Tanzanian teacher colleges: Practices and challenges. *Tanzania Journal of Education and Science*, 17(2), 87-104.
- Kennedy, A. (2016). Professional learning in and for communities. *Professional Development in Education*, 42(4), 527–540. <https://doi.org/10.1080/19415257.2015.1026452>
- Livingston, K. (2023). Teacher educators as change agents: The role of professional learning in advancing quality assurance. *Journal of Higher Education Policy and Practice*, 7(2), 44–59.

- Ministry of Education and Vocational Training (MoEVT). (2013). *Education sector performance report 2012/2013*. Dar es Salaam: Government Printer.
- Mnkandla, E., & Kahangwa, G. (2023). Digital readiness and professional development of teacher educators in post-pandemic Tanzania. *International Journal of Educational Technology in Higher Education*, 20(6), 1–19. <https://doi.org/10.1186/s41239-023-00415-8>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, 6(7), e1000097. <https://doi.org/10.1371/journal.pmed.1000097>
- Murray, J. (2022). Reconceptualising teacher educators' professional learning: Towards an inquiry-based model. *European Journal of Teacher Education*, 45(4), 478-495. <https://doi.org/10.1080/02619768.2022.2035769>
- Opfer, V. D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376-407. <https://doi.org/10.3102/0034654311413609>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: A decennial review of the global literature. *Education Economics*, 26(5), 445–458. <https://doi.org/10.1080/09645292.2018.1484426>
- Sallis, E. (2014). *Total quality management in education* (3rd ed.). Routledge.
- Schultz, T. W. (1971). *Investment in human capital: The role of education and research*. Free Press.
- Singh, J. (2013). Critical appraisal skills programme (CASP) checklists. *Journal of Pharmacology and Pharmacotherapeutics*, 4(2), 76-77.
- Stutchbury, K., Mutemeri, J., & Mwabumba, L. (2022). Quality assurance in teacher education: Voices from Tanzanian colleges. *African Educational Research Journal*, 10(4), 320-332.
- Tikly, L., & Barrett, A. M. (2017). *Education quality and social justice in the Global South: Challenges for policy, practice, and research*. Routledge.
- Tikly, L., & Barrett, A. M. (2021). Reimagining education quality for the twenty-first century: A Southern theory perspective. *Compare: A Journal of Comparative and International Education*, 51(2), 240–259. <https://doi.org/10.1080/03057925.2020.1732182>
- Tanzania Commission for Universities (TCU). (2023). *Annual report on quality assurance and accreditation of higher education institutions in Tanzania*. Dar es Salaam: TCU.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2021). *Reimagining our futures together: A new social contract for education*. Paris: UNESCO.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2022). *The global teaching profession report*. Paris: UNESCO.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2024). *Quality assurance and teacher professional learning in Sub-Saharan Africa: Regional synthesis report 2020-2024*. Paris: UNESCO.

- United Republic of Tanzania (URT). (2021). *Education sector development plan (2021-2026): Improving quality, relevance and equity*. Dar es Salaam: Ministry of Education, Science and Technology.
- United Republic of Tanzania (URT). (2024). *National report on the status of quality assurance in higher education institutions*. Dar es Salaam: Ministry of Education, Science and Technology.
- Wedgwood, R. (2019). The quality-quantity tension in Tanzanian education: Policy dilemmas and reform trajectories. *International Journal of Educational Development*, 66(3), 111-121. <https://doi.org/10.1016/j.ijedudev.2018.09.003>