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Instructor preparedness for disability inclusion in Kenyan technical training institutes under Competency-Based Education and Training: An integrative literature review

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Abstract

Despite extensive high-level policy commitments to inclusive education globally as well as in Kenya, the implementation of disability-inclusive pedagogy within Technical and Vocational Education and Training (TVET) institutions remains constrained. The literature and evidence point to many gaps in terms of attitude, capacity and training to meet the requirements on full inclusion. This critical literature review investigates a persistent institutional gap: how the rapid national transition to a Competency-Based Education and Training (CBET) framework interacts with (or ignores) instructor preparedness and capacity for disability-related inclusion. The scope of this review encompasses Kenyan legislative acts, institutional qualification structures, and empirical research published between 2013 and 2025. Methodologically, an integrative literature review design was deployed, analysing 42 peer-reviewed articles, sector policies, and statutory institutional frameworks using a thematic synthesis. The analysis reveals three systemic contradictions: first, a profound conceptual siloing of disability inclusion distinct from core CBET structural reforms; second, the complete absence of explicit disability-inclusive pedagogical competencies within the Technical and Vocational Education and Training Authority (TVETA) trainer qualification frameworks; and third, an acute shortage of formalised pre-service or in-service inclusive education pipelines and training at the Kenya School of Technical and Vocational Education and Training

(KSTVET). Consequently, as a result of these factors, less than 1% of trainees in technical training institutes are persons with disabilities, heavily concentrated away from high-demand technical specialisations. The review concludes by presenting a strategic structural framework to integrate Universal Design for Learning (UDL) indices and principles into the TVET CDACC curriculum and KSTVET teacher-education mandates, establishing a clear path toward global vocational equity and international best practice regarding implementation of inclusion.

Key terms: Disability Inclusion; Competency-Based Education and Training; Technical and Vocational Education and Training; Instructor Preparedness; Universal Design for Learning; Inclusive Pedagogy

Introduction

Kenya's Technical and Vocational Education and Training (TVET) sector has experienced structural realignment following the enactment of the landmark TVET Act No. 29 of 2013. This legislation mandated the systematic decentralisation and reorganisation of the system into three distinct institutional tiers: national polytechnics, technical training institutes (TTIs), and vocational training centres (VTCs). By 2018, Kenya had established more than 1,300 operational TVET institutions nationwide.

However, macro-level enrollment metrics indicate that structural expansion and growth has not translated into demographic equity. The enrollment of trainees with disabilities across these institutions remains disproportionately low and structurally marginalised. National baseline data compiled by the Kenya Institute of Special Education (KISE, 2019) revealed that only 3.5% of trainees with functional disabilities were enrolled within lower-tier vocational training centres, while less than 1% had secured admission to technical training institutes. Developing meaningful school-level inclusion requires challenging these numbers by directly targeting institutional capacity (Ainscow et al. 2006).

Parallel to these institutional shifts, the Ministry of Education enacted a paradigm shift by adopting the Competency-Based Education and Training (CBET) framework. This pedagogical model transitions the learning environment from traditional, teacher-centred knowledge transmission to the active facilitation of demonstrable, industry-aligned practical competencies. Under the CBET mandate, technical trainers must transition toward a learner-centred, self-paced, and mastery-based operational approach. This curricular overhaul was intensified via a modular implementation blueprint that broke down comprehensive TVET courses into smaller units designed for completion within three to six months (Kimemia et al., 2025). While this modular framework permits flexible entry and exit points for rapid workforce integration, it introduces pedagogical pacing demands that heavily impact inclusive classroom environments.

A clear systemic contradiction exists between Kenya's high-level statutory aspirations and frameworks and the day-to-day instructional realities in technical classrooms. Globally, Kenya has ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) without reservations. The Convention stipulates a commitment to provide an inclusive education system at across all structural levels. Nationally, this baseline is reinforced by the Constitution of Kenya (2010), the TVET Act (2013), and the Ministry of Education's Sector Policy for Learners and Trainees with Disabilities (2018). These instruments command and commit to affirmative action, equity, and the provision of least restrictive learning environments.

Nevertheless, a review of emerging empirical data indicates that exclusion persists due to infrastructural limitations and a systemic lack of instructor preparedness. The current operationalisation of the technical curriculum acts as an institutional barrier, due to the reality that learning delivery models remain

unadapted to the heterogeneous cognitive and sensory needs of trainees with disabilities. While the Competency-Based Curriculum (CBC) framework aims to foster individual capabilities and economic productivity, the TVET transition has largely ignored or failed to deal with the reality that unadapted instructional media can create significant institutional barriers to skill acquisition. Instead of positioning the deficit within the learner, contemporary inclusive pedagogy demands that the curriculum and the instructor adapt to accommodate individual differences (Slee, 2011).

This review directly addresses this gap by conducting a critical, integrative review of literature regarding instructor preparedness for disability-related inclusion in Kenyan technical training institutes within the CBET paradigm. It critically interrogates whether the learner-centred philosophy of CBET has been operationalised into concrete instructor competencies and teacher-training tracks, mapping out the unaddressed or unacknowledged policy implementation gaps.

Problem Statement

While Kenya’s educational reforms have successfully expanded access to technical training through the establishment of over 1,300 TVET institutions and the roll-out of modular CBET programs, trainees with disabilities remain systematically excluded from mainstream technical classrooms. National data reveal that less than 1% of the student population in technical training institutes comprises learners with disabilities. This exposes a clear gap between stated policy aims and realities on the ground, pointing towards a failure in the state's inclusive mandate.

Past research has consistently framed this exclusion around infrastructural deficits and resource constraints, overlooking the critical role of instructor preparedness and pedagogical delivery models. Murgor, Keter, and Changa’ch (2014) noted that the most striking disparity at the TVET level was the discrimination and isolation of students with disabilities, alongside very low enrollment. This points directly to the inadequacy of teacher training education in preparing educators to handle students in specialised technical tracks. Interestingly, while teachers often maintain a positive outward attitude toward these students, trainees frequently report finding their instructors structurally unsupportive and unfriendly. This insight is important because the core challenge concerns teacher training preparedness to instruct in inclusive, heterogeneous settings rather than basic personal attitude. This understanding provides a baseline from which to analyse, improve, and evaluate systemic progress toward providing equitable vocational skills to students with disabilities in TVET institutions.

The underlying problem is that the national transition to the CBET paradigm appears to have advanced with limited integration of disability-inclusive pedagogical principles.The Technical and Vocational Education and Training Authority (TVETA) standards and the Kenya School of Technical and Vocational Education and Training (KSTVET) pre-service curricula remain silent on disability-inclusive competencies. Consequently, technical instructors enter specialised laboratories and workshops without the necessary skills to differentiate instruction, manipulate assistive technologies, or implement the basic principles of Universal Design for Learning (UDL). They lack a basic awareness of inclusive alternatives and requisite accommodations that adapt to the needs of learners with disabilities, particularly regarding complex conditions like visual impairments (Tanui, Bruce, & Chepkwony, 2023). Without a critical, thematic synthesis of these structural gaps, the TVET sector risks reinforcing an inequitable, two-tiered system that locks individuals with disabilities out of the modern digital and technical economy.

Theoretical Framework

This review is anchored in three complementary frameworks: the Social Model of Disability, Universal Design for Learning (UDL), and the conceptualisation of Competency-Based Education and Training (CBET) as a learner-centred and inclusive pedagogical approach. Together, these frameworks provide a

lens for understanding disability inclusion, instructor preparedness, and equitable participation within Kenyan Technical and Vocational Education and Training (TVET) institutions.

Social Model of Disability

The Social Model of Disability, advanced by Oliver (1990), shifts attention from individual impairments to the environmental, institutional, and attitudinal barriers that restrict participation. From this perspective, disability is not viewed primarily as a medical condition but as a consequence of systems and structures that fail to accommodate human diversity (Oliver, 1990). The model challenges deficit-based understandings of disability and emphasizes the responsibility of institutions to remove barriers that limit equal participation (Degener, 2017).

Within TVET institutions, such barriers may include inaccessible curricula, inadequate instructional adaptations, inflexible assessment practices, inaccessible learning environments, and insufficient instructor preparedness. The model therefore provides an appropriate framework for examining the extent to which the TVET system enables or constrains the participation and success of trainees with disabilities (Slee, 2011).

Universal Design for Learning

Universal Design for Learning (UDL) provides a practical framework for designing inclusive learning environments that accommodate learner diversity from the outset rather than through later modifications (CAST, 2018). UDL is grounded in the principle that learners differ in how they access information, engage with learning experiences, and demonstrate their understanding. Accordingly, effective instructional design should provide:

Multiple means of engagement to stimulate and sustain learner motivation and participation (CAST, 2018).

Multiple means of representation to present information through diverse and accessible formats (CAST, 2018).

Multiple means of action and expression to enable learners to demonstrate competence using varied approaches (CAST, 2018).

Within the context of disability inclusion, UDL shifts responsibility from learners adapting to rigid educational structures to institutions and instructors designing flexible learning environments that support participation by all learners. Consequently, instructor preparedness becomes a critical factor in the successful implementation of inclusive educational practices (Tanui et al., 2023).

The emphasis on flexibility and learner variability is also aligned with broader principles of educational equity, social justice, and inclusion, which advocate for the removal of barriers that restrict participation and achievement among marginalized groups (Bruce, 2020).

Competency-Based Education and Training as an Inclusive Pedagogical Approach

The principles underpinning Competency-Based Education and Training align closely with those of inclusive education because both emphasize learner-centred instruction, flexibility, and the achievement of clearly defined learning outcomes. CBET focuses on demonstrated competence rather than uniform instructional pacing, allowing learners to progress according to their mastery of skills and knowledge (Gervais, 2016).

Similarly, UDL promotes flexibility in instructional delivery, learning resources, and assessment practices to address learner diversity. Both approaches recognize that learners require different pathways and

levels of support to attain comparable outcomes. Inclusive pedagogy is founded on the belief that educational systems should accommodate learner differences rather than exclude those who do not conform to traditional instructional models (Florian, 2008).

The successful implementation of CBET therefore depends not only on curriculum reform but also on instructors' ability to design inclusive learning experiences, adapt assessment practices, utilise assistive technologies, and respond effectively to diverse learner needs. Where such competencies are lacking, the potential of CBET to promote educational inclusion may not be fully realised (TVETA, 2019; UNESCO, 2025).

Application of the Framework to the Review

The integration of the Social Model of Disability, Universal Design for Learning, and CBET provides a comprehensive framework for analysing disability inclusion within Kenyan TVET institutions. The Social Model identifies the systemic barriers that limit participation (Oliver, 1990), UDL offers practical principles for designing accessible learning environments (CAST, 2018), and CBET provides a pedagogical structure that supports flexible and learner-centred instruction (Gervais, 2016).

Together, these frameworks guide the review's examination of whether existing policies, institutional practices, and instructor preparation programmes adequately equip educators to support trainees with disabilities. They further provide a foundation for understanding how instructor preparedness influences the implementation of disability-inclusive pedagogy and the realization of equitable learning opportunities within the CBET framework (Florian, 2008; UNESCO, 2025).

Methodology

This study adopted a critical integrative literature review design to systematically identify, evaluate, and synthesise literature relating to instructor preparedness for disability inclusion within Technical and Vocational Education and Training (TVET) institutions operating under the Competency-Based Education and Training (CBET) framework. An integrative review approach was selected because it facilitates the examination of evidence from diverse sources, including empirical studies, policy documents, statutory frameworks, institutional reports, and international development publications (Snyder, 2019). The approach enabled the identification of prevailing trends, policy gaps, implementation challenges, and opportunities for strengthening disability-inclusive TVET practice in Kenya.

Search Strategy and Information Retrieval

A structured literature search was conducted across five electronic databases: Scopus, ERIC, PubMed, Google Scholar, and African Journals Online (AJOL). These databases were selected because of their extensive coverage of educational research, disability studies, policy literature, and African scholarship.

The search strategy employed combinations of Boolean operators and keywords related to disability inclusion, instructor preparedness, and competency-based training. Typical search strings included:

(TVET OR technical training institute OR polytechnic) AND (disability inclusion OR inclusive education OR special needs education) AND (CBET OR competency-based education and training) AND (Kenya)

Additional searches were conducted using reference lists of selected articles and relevant policy documents to identify supplementary sources.

The review focused on publications produced between 2013 and 2025, corresponding with the implementation period of the Technical and Vocational Education and Training Act (2013) and the subsequent expansion of CBET reforms within Kenya's TVET sector.

Inclusion and Exclusion Criteria

Studies and documents were selected using predefined inclusion and exclusion criteria.

Inclusion Criteria

The review included:

Peer-reviewed empirical studies examining disability inclusion, instructor preparedness, inclusive pedagogy, or TVET implementation within Kenya and comparable Sub-Saharan African contexts.

Government policy documents, legal frameworks, strategic plans, standards, and implementation guidelines published by the Ministry of Education, TVETA, TVET CDACC, and KSTVET.

Publications and technical reports from international organisations such as UNESCO, ILO, UNICEF, and the World Bank.

Literature published in English between 2013 and 2025.

Exclusion Criteria

The review excluded:

Studies focusing exclusively on primary or secondary education without relevance to post-secondary or vocational education.

Editorials, opinion articles, conference abstracts, and publications lacking sufficient methodological detail.

Literature published before 2013 that did not directly inform contemporary TVET and CBET implementation in Kenya.

Duplicate records and sources with insufficient relevance to the study objectives.

Literature Screening and Quality Appraisal

The search process yielded an initial pool of 184 records. Following the removal of duplicate records and title and abstract screening, 68 full-text documents were assessed for eligibility. Application of the inclusion and exclusion criteria resulted in a final sample of 42 documents for detailed review.

To enhance the credibility of the review, sources were assessed for relevance, methodological rigor, policy significance, and contribution to understanding disability inclusion and instructor preparedness in the TVET sector. Priority was given to peer-reviewed studies, official government publications, and reports from recognised international organizations.

Data Extraction and Synthesis

Data were extracted using a structured review matrix that captured information on study objectives, research design, geographical context, key findings, policy recommendations, and implications for disability-inclusive TVET practice.

The selected literature was analysed through thematic synthesis (Thomas & Harden, 2008). Initial descriptive codes were generated from the reviewed sources and subsequently organized into broader analytical themes. Particular attention was given to instructor competencies, inclusive pedagogical practices, institutional preparedness, policy implementation, assessment adaptations, accessibility provisions, and barriers to disability inclusion.

The synthesis further examined the alignment between disability-inclusive education principles and the

objectives of CBET, enabling the identification of policy gaps, implementation challenges, and strategic opportunities for strengthening inclusive TVET provision in Kenya.

Literature Review and Critical Synthesis

Methodological Limitations in Existing Research

The reviewed literature reveals several methodological limitations in studies examining disability inclusion within Technical and Vocational Education and Training (TVET) institutions. A significant proportion of existing research relies on localized descriptive surveys and single-institution case studies that provide valuable contextual insights but offer limited evidence regarding system-wide implementation of inclusive education policies (Murgor et al., 2014; KISE, 2019).

Another recurring limitation is the tendency to equate positive attitudes toward inclusion with actual instructional competence. While several studies report generally favourable perceptions of disability inclusion among educators, evidence of effective implementation of inclusive pedagogical practices remains limited (Chinengundu, 2024; Jobir, 2024). This gap suggests that instructor willingness alone may not translate into the practical competencies required for inclusive teaching.

The reviewed literature also frequently treats persons with disabilities as a homogeneous group despite the diverse educational needs associated with physical, sensory, intellectual, and psychosocial disabilities. This lack of differentiation often results in broad recommendations that provide limited guidance for instructional adaptation within competency-based learning environments (Degener, 2017; Slee, 2011).

Theme 1: Policy Aspirations and Implementation Gaps

The literature demonstrates a substantial gap between disability-inclusive policy commitments and implementation within Kenyan TVET institutions. National policy frameworks, including the National Education Sector Strategic Plan (NESSP) and the Sector Policy for Learners and Trainees with Disabilities, emphasise equity, participation, and inclusive educational opportunities for all learners (Ministry of Education, 2018a; Ministry of Education, 2018b).

Despite these commitments, implementation challenges persist. Evidence from the Kenya Institute of Special Education (KISE) indicates that learners with disabilities continue to experience barriers in accessing mainstream technical and vocational training opportunities (KISE, 2019). The persistence of low enrolment rates and concentration of learners in limited vocational pathways suggests that inclusive policies have yet to be fully translated into institutional practice.

The literature therefore highlights the need for stronger alignment between policy intentions, institutional planning, funding mechanisms, instructor preparation, and accessibility provisions to achieve meaningful inclusion within the CBET framework.

Theme 2: Instructor Preparedness and Competency Gaps

A prominent theme emerging from the literature concerns the preparedness of instructors to implement inclusive education effectively. Although policy documents and professional standards emphasize learner-centred instruction and equitable participation, evidence suggests that many instructors receive limited preparation in disability-inclusive pedagogy (TVETA, 2019; GIZ, 2022).

The TVET Standard TVETS 03-1:2019 CBET Trainers Qualification Framework outlines professional requirements for technical trainers but provides limited emphasis on disability-specific instructional competencies, assistive technologies, accessibility adaptations, and inclusive assessment practices

(TVETA, 2019). As a result, disability inclusion is often treated as an additional responsibility rather than a core teaching competency.

This gap may limit instructors' capacity to adapt curriculum delivery, assessment approaches, and learning activities to accommodate diverse learner needs. The literature therefore identifies instructor preparedness as a critical determinant of successful disability inclusion within competency-based learning environments.

Theme 3: Institutional Capacity and System Readiness

Beyond individual instructor competencies, the literature points to broader institutional barriers that affect disability inclusion in TVET. These include inadequate infrastructure, limited availability of assistive technologies, insufficient accessibility modifications, weak support services, and constrained financial resources (KISE, 2019; GIZ, 2022).

Research further suggests that institutional leadership and governance play an important role in shaping inclusive educational practices. Where institutional commitment, strategic planning, and resource allocation are weak, disability inclusion initiatives often remain fragmented or poorly implemented. Consequently, effective inclusion requires a whole-institution approach that integrates accessibility, instructor development, learner support, and resource mobilisation within institutional planning processes.

Theme 4: Lessons from Sub-Saharan Africa

Evidence from other Sub-Saharan African countries reveals challenges similar to those observed in Kenya. Studies from South Africa and other regional contexts report persistent barriers relating to infrastructure, financing, instructor preparedness, assistive technologies, and access to inclusive learning opportunities (Bhilitane et al., 2024; Chinengundu, 2024).

Across these contexts, common concerns include:

Low enrolment and participation of learners with disabilities;

Inadequate physical accessibility of training facilities;

Limited instructor preparation in inclusive pedagogy;

Insufficient provision of assistive technologies;

Gender-based inequalities affecting learners with disabilities; and

Weak institutional support mechanisms.

These recurring challenges suggest that disability inclusion within TVET remains a systemic issue requiring coordinated policy, institutional, and pedagogical responses across the region.

Research Gap

The reviewed literature demonstrates growing recognition of disability inclusion within TVET; however, significant gaps remain regarding instructor preparedness within Kenya's CBET reform agenda. Existing studies largely examine access, infrastructure, policy implementation, and enrolment trends, while comparatively limited attention has been given to the competencies required by instructors to facilitate disability-inclusive teaching and learning.

Furthermore, few studies critically examine the alignment between CBET implementation, trainer qualification frameworks, and inclusive pedagogical requirements. This review addresses this gap by

synthesising evidence on disability inclusion, instructor preparedness, and institutional readiness within Kenyan TVET institutions and by proposing strategies for strengthening inclusive competency-based training systems.

Findings and Discussion

This section presents the major findings derived from the synthesis of the reviewed literature and discusses their implications for disability inclusion and instructor preparedness within Kenya's CBET-oriented TVET system.

The synthesis of the reviewed literature reveals five interrelated findings concerning disability inclusion and instructor preparedness within Kenya's Competency-Based Education and Training (CBET) framework.

Disability Inclusion Remains Weakly Integrated within CBET Implementation

The reviewed literature indicates that although Kenya has established policy and legislative frameworks promoting equitable access to education, disability inclusion is not consistently embedded within the implementation of CBET reforms (Ministry of Education, 2018a; Ministry of Education, 2018b). While policy documents advocate inclusive participation, evidence suggests that disability-related concerns are often addressed through separate initiatives rather than being integrated into mainstream curriculum design, assessment processes, and instructional delivery.

This disconnect limits the extent to which inclusive education principles are translated into day-to-day teaching and learning practices within TVET institutions. Consequently, learners with disabilities may continue to experience barriers to full participation despite the existence of supportive policy frameworks.

Gaps Exist in Trainer Preparation for Inclusive Pedagogy

A recurring theme in the literature concerns limitations in instructor preparedness for disability-inclusive teaching. Although trainer qualification frameworks emphasise technical and pedagogical competence, there is limited evidence that disability inclusion, assistive technologies, Universal Design for Learning (UDL), and differentiated instruction are systematically incorporated into trainer preparation programmes (TVETA, 2019; GIZ, 2022).

The literature suggests that many instructors enter the profession with limited exposure to inclusive pedagogical approaches. As a result, their ability to adapt learning materials, assessments, and instructional strategies for learners with diverse needs may be constrained. This finding reinforces the importance of integrating inclusive teaching competencies within both pre-service and in-service trainer development programmes.

Participation of Learners with Disabilities Remains Limited

The reviewed studies consistently report low participation rates among learners with disabilities in mainstream TVET institutions (KISE, 2019; Murgor et al., 2014). Existing evidence suggests that barriers to participation extend beyond physical accessibility and include challenges related to instructional design, assessment practices, curriculum adaptation, learner support services, and institutional readiness.

These findings support the argument advanced by the Social Model of Disability that exclusion often results from systemic and institutional barriers rather than individual impairments alone (Oliver, 1990; Degener, 2017). Improving participation therefore requires attention to both physical accessibility and pedagogical accessibility within CBET programmes.

Institutional and Curriculum Structures Present Additional Barriers

The transition toward competency-based and modularised training offers significant opportunities for learner-centred instruction; however, the reviewed literature suggests that implementation challenges may unintentionally disadvantage some learners with disabilities where adequate accommodation measures are lacking (Gervais, 2016; UNESCO, 2025).

Flexible learning pathways, differentiated assessment approaches, supportive technologies, and individualised instructional support are not consistently available across institutions. Consequently, learners who require additional time, adaptive resources, or specialised instructional support may encounter challenges in fully benefiting from CBET programmes.

Resource Allocation Influences Inclusive Education Outcomes

The literature further highlights the importance of financing and resource allocation in promoting disability inclusion within TVET institutions (Tanaka et al., 2024; UNESCO, 2025). Effective inclusion requires investments in accessible infrastructure, assistive technologies, specialised learning materials, instructor professional development, and learner support services.

However, several studies report that resource constraints continue to affect the implementation of inclusive practices. Inadequate funding may limit institutions' capacity to provide the accommodations and support systems required to facilitate equitable participation for learners with disabilities.

Discussion

Collectively, the reviewed literature suggests that disability inclusion within Kenya's TVET sector is influenced by the interaction of policy frameworks, instructor preparedness, institutional capacity, curriculum implementation, and resource availability. While substantial progress has been made through policy reforms and the expansion of CBET, implementation challenges continue to limit the realisation of inclusive educational opportunities for learners with disabilities.

The findings support the Social Model of Disability by demonstrating that exclusion is often produced through systemic barriers embedded within educational structures rather than through disability itself (Oliver, 1990; Degener, 2017). Similarly, the principles of Universal Design for Learning highlight the need for flexible instructional approaches capable of accommodating learner diversity (CAST, 2018). The review therefore suggests that strengthening instructor preparedness, institutional capacity, and inclusive curriculum implementation will be critical to ensuring that the goals of CBET are realised for all learners, including persons with disabilities.

Conclusion

This review examined instructor preparedness for disability inclusion within Kenyan Technical and Vocational Education and Training (TVET) institutions operating under the Competency-Based Education and Training (CBET) framework. The findings indicate that although Kenya has established policy and legislative commitments that promote inclusive education, significant challenges remain in translating these commitments into practice.

The review identified gaps in instructor preparation, institutional capacity, accessibility provisions, and the integration of disability-inclusive pedagogical approaches within TVET systems. Evidence suggests that many barriers experienced by learners with disabilities are institutional and pedagogical rather than disability-specific, supporting the assumptions of the Social Model of Disability (Oliver, 1990; Degener, 2017).

The review further established that the successful implementation of disability-inclusive CBET requires more than policy commitment. It requires adequately prepared instructors, accessible learning environments, supportive institutional structures, appropriate learning resources, and effective monitoring mechanisms. Strengthening these areas would enhance equitable participation and support the realisation of inclusive and competency-based vocational education in Kenya.

Recommendations

Based on the findings of this review, the following recommendations are proposed:

The Technical and Vocational Education and Training Authority (TVETA) should strengthen trainer competency standards by incorporating disability-inclusive pedagogy, Universal Design for Learning (UDL), assistive technologies, and differentiated assessment practices within trainer qualification frameworks.

The Kenya School of Technical and Vocational Education and Training (KSTVET) should integrate disability-inclusive education, assistive technology utilisation, and inclusive instructional design into pre-service and in-service trainer education programmes.

The Ministry of Education should strengthen monitoring and evaluation mechanisms to ensure that disability inclusion is systematically integrated within CBET implementation, institutional planning, quality assurance processes, and educational performance indicators.

TVET institutions should invest in accessible learning environments, assistive technologies, adaptive learning resources, and learner support services to facilitate meaningful participation by trainees with disabilities.

Strategic partnerships between TVET institutions, the Kenya Institute of Special Education (KISE), development partners, and professional bodies should be strengthened to promote continuous professional development and dissemination of inclusive pedagogical practices.

Implications for Practice

The findings of this review suggest that disability inclusion should be viewed as a core component of quality technical and vocational education rather than a specialised or supplementary intervention. For CBET reforms to achieve their intended outcomes, instructor preparedness must extend beyond technical expertise to include competencies in inclusive pedagogy, learner support, accessibility, and instructional adaptation.

Institutional leaders should prioritise disability inclusion within strategic planning, resource allocation, and staff development initiatives. Similarly, teacher educators and curriculum developers should ensure that inclusive practices are embedded within trainer preparation programmes and competency standards. Such measures would contribute to more equitable learning opportunities and improved participation of learners with disabilities within Kenyan TVET institutions.

Limitations of the Review

This review was based exclusively on secondary sources obtained from published literature, policy documents, institutional reports, and official publications. Consequently, the findings are dependent on the quality, scope, and methodological rigor of the reviewed sources and do not include primary data collected directly from instructors, trainees, institutional leaders, or policymakers.

The review focused primarily on literature relating to Kenyan Technical and Vocational Education and Training (TVET) institutions and selected studies from Sub-Saharan Africa. As a result, the findings may

not be fully generalizable to other geographical regions with different policy environments, educational systems, or disability inclusion frameworks.

Additionally, the availability of empirical studies examining instructor preparedness for disability inclusion within Kenyan TVET institutions remains limited. In several instances, evidence was drawn from broader studies on inclusive education, technical education, and vocational training, which may not have specifically examined the intersection between disability inclusion and Competency-Based Education and Training (CBET).

The review also relied on published and publicly accessible sources. Relevant institutional reports, internal evaluations, unpublished studies, and implementation documents that were not publicly available may contain additional insights that were not captured in this synthesis.

Finally, because policies, training standards, and institutional practices continue to evolve, the findings reflect the state of evidence available during the review period and may require updating as new research, policy reforms, and implementation experiences emerge.

Despite these limitations, the review provides a comprehensive synthesis of available evidence and offers valuable insights into instructor preparedness, disability inclusion, and the implementation of Competency-Based Education and Training within Kenyan TVET institutions.

Further Research

Future research should explore the effectiveness of disability-inclusive pedagogical interventions within CBET environments and assess the impact of instructor preparation programmes on learning outcomes for trainees with disabilities. Comparative studies involving different TVET institutions and regional contexts would also contribute to a deeper understanding of effective practices for promoting inclusion in competency-based vocational education.

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