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RESEARCH ARTICLE

# Preparing Competent Students in Public Secondary Schools: Teachers' Perceptions on the Implementation of the 2023 Education and Training Policy in Tarime Town Council, Mara-Tanzania

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## ABSTRACT

This paper explored teachers' perceptions on implementing the 2023 edition of the 2014 Education and Training Policy in preparing competent students in public secondary schools in Tarime Town Council in Mara region, Tanzania. This study employed qualitative approach with case study design. A purposive sample of 17 participants was selected. Data were collected using semi-structured interviews and document analysis. Trustworthiness was ensured through credibility, transferability, dependability, and confirmability measures including member checking, thick descriptions, consistent procedures, audit trails, and peer review. The findings indicate that teachers generally support the implementation of the 2023 education policy, recognizing its potential to enhance student competence through vocational training, new subjects, ICT integration, and student-centered approaches. However, significant challenges such as inadequate resources, insufficient teacher training, and limited infrastructure hinder effective implementation and the realization of the policy's intended outcomes. The study concluded that addressing resource shortages and providing adequate teacher training are essential for the successful implementation of the 2023 education policy. The study recommended that the government and stakeholders invest in infrastructure development and continuous professional development programs to support effective policy execution.

**Keywords:** Teachers' perceptions; implementation of the 2023 edition of the 2014; education and training policy; preparing competent students

## INTRODUCTION

The 2023 edition of Tanzania's 2014 Education and Training Policy underscores the implementation of a Competence-Based Curriculum (CBC) to prepare students for the demands of the 21st century. This curriculum aims to instill essential skills such as creativity, critical thinking, problem-solving, innovation, and entrepreneurship. Through learner-centered and practical-oriented approaches, the policy shifts focus from rote learning to equipping students with real-world competencies needed for both academic success and meaningful participation in the labor market (URT, 2023; Budi & Farcis, 2021). To actualize these objectives, the policy outlines several strategic interventions, including the integration of ICT in teaching and learning, the introduction of vocational education streams, and the promotion of subject specialization. These strategies are designed to enhance the relevance and quality of education by aligning it more closely with labor market needs, national development goals, and global economic trends. The policy also emphasizes the importance of instilling a self-driven learning culture

among students, particularly in science, technology, and entrepreneurship. However, the successful implementation of CBC hinges critically on teachers' understanding, attitudes, and practices. As the central agents in curriculum delivery, teachers must not only grasp the principles behind CBC but also be adequately equipped with the necessary pedagogical skills and resources. Studies from various contexts have shown that even with strong policy frameworks, a lack of teacher readiness can significantly hinder educational reform efforts (Chuene & Teane, 2024).

Globally, countries such as the United States and China have faced similar challenges. Despite embracing competency-based reforms, many teachers in these nations continued to rely on traditional teaching and assessment methods due to limited understanding of key competencies and heavy workloads (Rogers, 2021; Deng et al., 2024). In both contexts, policy intentions did not fully translate into practice due to insufficient professional development and a lack of structural support for teachers. In Indonesia and Nigeria, the implementation of CBC has also encountered obstacles, primarily due to inadequate teacher training and classroom support. Indonesian teachers have been generally receptive to the curriculum reforms but require more consistent and comprehensive professional development to effectively apply CBC principles (Mitra & Purnawarman, 2019). Similarly, Nigerian teachers accept the shift toward competency-based learning but struggle with insufficient training, support systems, and resources, limiting their ability to operationalize the curriculum (Akinrinola, 2020). This suggests that while the adoption of Competence-Based Curriculum reflects a shift toward 21st-century skills, its implementation remains inconsistent. This inconsistency is largely attributed to limited teacher capacity, insufficient professional development, and inadequate systemic support in education.

The African continent more broadly reflects these trends. In South Africa, while teachers recognize the value of CBC, the lack of adequate training and implementation support has limited its effectiveness in transforming classroom practices (Mathias et al., 2023; Namubiru et al., 2024). Ugandan teachers have expressed positive views about CBC's learner-centered orientation and skill development potential, but inadequate resources and varied levels of teacher preparedness remain significant barriers. In Kenya, educators cited numerous challenges, including insufficient ICT skills, a lack of parental support, heavy workloads, and inadequate materials all of which have impeded the implementation of CBC (Segera et al., 2024). While teachers support the principles of Competence-Based Curriculum, their ability to implement it effectively is constrained by systemic challenges. These include inadequate training, limited resources, and contextual barriers such as high workloads and insufficient stakeholder support.

In the Tanzanian context, the original 2014 Education and Training Policy were developed to enhance educational access, equity, and quality. However, it faced criticism for lacking alignment with technological advancements, failing to meet evolving labor market demands, and offering insufficient support for teacher capacity building. In response to these challenges, the 2023 revised edition of the policy was introduced, with a stronger emphasis on developing competencies through expanded vocational education, ICT integration, and learner-centered pedagogy (URT, 2023). To support the 2023 policy goals, the government launched several initiatives such as the Secondary Education Quality Improvement Program (SEQUIP) and the Education Sector Development Plan (2021/22–2025/26). These programs focus on improving teacher recruitment and training, upgrading school infrastructure, and enhancing ICT access and integration (Kiwonde, 2018; UNEP, 2024). Additionally, the government has worked to strengthen procurement processes, stakeholder partnerships, and resource distribution to ensure the timely and efficient delivery of teaching and learning materials.

Despite these national efforts, evidence from Tarime Town Council reveals a significant gap between policy intentions and classroom realities. Teachers in the area report limited access to in-service training, inadequate instructional materials, overcrowded classrooms, and poor infrastructure. The scarcity of ICT tools and unclear understanding of policy expectations further hinder the effective delivery of CBC (URT, 2023). These findings indicate that schools in Tarime are not fully prepared to implement the revised policy, highlighting the persistent disconnect between high-level educational reforms and their implementation at the grassroots level. Against this backdrop, the present study was undertaken to explore teachers’ perceptions of the 2023 edition of the 2014 Education and Training Policy, focusing on how well it supports the development of competent students in public secondary schools within Tarime Town Council.

## LITERATURE REVIEW

### Teachers' Perceptions on the Implementation of Education and Training Policy in Preparing Competent Students in Public Secondary Schools

Research from various global and European contexts underscores the critical role of teacher perceptions and preparedness in the successful implementation of competency-based education reforms. In the United States, Rogers (2021) found that administrative and structural support positively influenced CBE implementation among secondary teachers in New Hampshire, while in Jamaica, Lewis (2022) revealed that inadequate preparation, increased workload, and lack of clear guidelines contributed to English teachers' negative perceptions of CBE. Similarly, in Peru, Ramos (2020) found that although teachers supported the CBC, they lacked a deep understanding of core concepts like competence and learning standards, highlighting the need for more comprehensive training across both urban and rural areas. In rural Nicaragua, Siegel (2024) identified key implementation barriers, including limited engagement, insufficient training, time constraints, and resource shortages. These findings point to the necessity of in-service training through seminars and workshops to prepare teachers effectively, as well as adequate staffing and provision of clear guidelines and teaching resources. European studies reflect similar themes: Löfgren (2022) found Finnish teachers valued domain-specific competencies and equitable education, while Van and Voogt (2018) in the Netherlands outlined six interrelated dimensions of 21st-century competencies influencing teacher understanding. In contrast, Peskova et al. (2019) reported negative attitudes toward curriculum reform among Czech teachers, emphasizing the importance of teacher buy-in. Collectively, these studies affirm that teacher perspectives must be prioritized, and that sustained professional development and workplace-based training are essential for successful curriculum implementation.

Across Asia, scholarly investigations into teachers' perceptions of 21st-century skills-oriented curricula reveal support and significant challenges. Deng et al. (2024) found that Chinese high school teachers supported CBE reform but faced obstacles like the national college entrance exam and a focus on student scores, which hindered the practical teaching of competencies. It highlighted significant structural and institutional barriers, particularly the tension between exam-oriented education and the development of competencies. Teachers' efforts to implement competency-based teaching were often undermined by the overarching focus on standardized testing and student scores, which dominated the educational landscape in China. Besides that, Nawastheen (2021) in Sri Lanka noted that teachers did not adapt to competency-based curriculum reforms, necessitating strategies to improve their methods. In Addition, Mitra and Purnawarman (2019) identified that while parts of Indonesia's 2013 curriculum were implemented, further teacher training was required. Roshid and Haider (2024) in Bangladesh highlighted that many teachers, particularly in rural areas, were uninformed about 21st-century skills, resulting in limited implementation. Teachers need a thorough understanding of the educational policy reforms to participate fully in the implementation. On this basis, in-service training is necessary for teachers to adapt to the policy changes.

Studies in various West African countries have explored teachers' perceptions of education and training policies in preparing competent students. According to Akinrinola (2020), secondary school teachers in Nigeria had a favorable opinion of competency-based methods, but a lack of professional development and assistance impacted their quality of instruction. The report suggested promoting 21st-century talents by going beyond conventional evaluations. However, the study is limited in its capacity to fully reflect the challenges to CBE implementation due to its limited focus on teacher views and its dependence on self-reported data. In Ghana, Wongnaa and Boachie (2018) revealed that Kwame Nkrumah University faculty members positively perceived competency-based training (CBT) for instilling employable skills but faced challenges such as heavy teaching loads and large class sizes. The study suggested providing resources, incentives, and training to enhance CBT adoption. These studies' findings call for the government to ensure that teachers are provided with professional development and assistance for effective teaching and learning processes in implementing the education and training policy. In addition, enough teaching and learning resources should be provided, together with employing the required number of teachers for optimum teaching loads and class size.

Research from southern African countries South Africa, Zambia, and Swaziland reveals generally positive teacher attitudes toward the shift to Competency-Based Education (CBE), but also highlights significant challenges. In South Africa, Akinrinola (2020) found that

despite favorable perceptions, a lack of professional training and support hindered effective implementation and impacted teaching quality. In Zambia, Mulenga and Kabombwe (2019) noted confusion and misunderstandings about how to develop key competencies, resulting in unclear curriculum discussions. Similarly, in Swaziland, Dlamini et al. (2018) linked the renewed emphasis on CBE to socio-economic pressures and external support, recommending clearer guidelines and detailed explanations for educators. Overall, while teachers view CBE positively, inadequate training, support, and curriculum clarity undermine its effectiveness.

Research conducted in East African countries on teachers' views of competency-based education highlights shared challenges and the need for improvements. In Kenya, Segera et al. (2024) used a mixed-method approach to examine teacher readiness for CBE in public secondary schools, revealing inadequate preparation and recommending further training and resource allocation. Similarly, Akinrinola (2020) in Rwanda employed a mixed-method approach, finding positive attitudes towards CBE but a lack of professional training and support, impacting teaching quality. The findings revealed that while there were positive attitudes towards Competency-Based Education, there was a significant lack of professional training and support for teachers. In Uganda, Namubiru et al. (2024) utilized mixed methods through descriptive surveys, identifying difficulties in CBE implementation and stressing the importance of professional development, sufficient instructional materials, and stakeholder engagement for a supportive environment. They found challenges, including difficulties adapting to the new system, insufficient professional development for teachers, a lack of instructional materials, and limited stakeholder engagement. The studies in East African countries revealed similar challenges in curriculum changes toward competence-based education.

Research in Tanzania on teachers' perceptions of competency-based education points to the requirement for improved resources and teacher training. Nkya et al. (2021) utilized a mixed-method approach with cross-sectional surveys and case studies, revealing that although teachers support the shift to competence-based curricula, they struggle with insufficient in-service training, large class sizes, and resources. Similarly, Mokoro (2020) used a convergent parallel mixed design, finding that insufficient teacher training hampers effective CBE implementation. The significance of consistent, thorough teacher preparation as well as improved resource availability is emphasized in both studies. To implement effectively the education and training policy, the government should ensure that there is sufficient in-service training, adequate teachers for optimum class sizes and provision of adequate teaching and learning resources.

## METHODOLOGY

This study employed a qualitative research approach to deeply explore teachers' perceptions on the implementation of the 2023 edition of the 2014 Education and Training Policy in preparing competent students in public secondary schools, as it allows for in-depth understanding of complex social realities (Oranga & Matere, 2023). An intrinsic case study design was adopted to focus specifically on Tarime Town Council, chosen for its unique context in implementing the policy (Glette & Wiig, 2022). The target population included 42 educational stakeholders: one Town Secondary Education Officer (TSEO), one District School Quality Assurance Officer (DSQAO), eight Ward Education Officers (WEOs), 16 heads of public secondary schools, and 16 academic teachers. From this, a sample of 17 participants was selected through purposive sampling, a non-probability technique ideal for selecting individuals with relevant expertise and direct experience in the area of study (Wang & Davis, 2024). Data were collected using semi-structured interviews and document analysis, which enabled the researcher to gather rich, detailed insights and triangulate findings (Smith & Brown, 2023). To ensure the trustworthiness of the research instruments, the study emphasized credibility through member checking and expert review, transferability via thick description, dependability by maintaining consistent procedures and documentation, and confirmability through an audit trail, triangulation, and peer review (Flick, 2018; Patton, 2018; Kocaman, 2025). Ethical considerations were strictly observed, including informed consent, respect for participants' rights and well-being, confidentiality, and the honest reporting of findings to protect both the participants and the integrity of the research process (Jones & Brown, 2023).

## RESULTS AND DISCUSSIONS

**Teachers' perceptions on implementing education and training policy in preparing competent students in public secondary schools.**

This explored teachers' perceptions on the implementation of education and training policy in preparing competent students in public secondary schools. In order to obtain detailed information, the researcher had seven aspects: perception of teachers on vocational education stream, general education stream, introduction of new subjects, integration of ICT in teaching and learning, training and professional development, student-centered teaching approaches, and practical-oriented learning and teaching. The primary informants included Public secondary schools' academic teachers, the Head of public secondary schools, the Ward Education Officers, the Town Secondary Education Officer and the District School Quality Assurance Officer. Concerning this objective, the research revealed the following:

**Introduction of Vocational Education Stream**

The results showed that teachers believed introducing the vocational education stream would better meet the needs of students interested in vocational training, which was expected to improve student retention. This aligns with the updated 2023 edition of the 2014 Education and Training Policy (ETP), implemented by the Ministry of Education, Science and Technology (MoEST) in collaboration with the President's Office–Regional Administration and Local Government (PO-RALG). MoEST leads curriculum development and sets education standards, while PO-RALG oversees local administration, community engagement, and resource allocation. Key institutions like the National Council for Technical and Vocational Education and Training (NACTVET) and the Vocational Education and Training Authority (VETA) ensure vocational training is standardized, accredited, and meets labor market needs. The policy was first implemented in 2024, with Form One students enrolled in vocational streams across 39 selected schools (25 public, 14 private) that had the required facilities. The new stream officially began in January 2025. The dual certification system offering both a VTE Certificate from NACTVET and a certificate from NECTA ensures recognition of both academic and technical skills, aiming to better prepare students for future careers (Ministry of Education, Science and Technology, 2025). Moreover, one of the respondents was quoted as saying:

> "Secondary education vocational stream will retain students who are interested in vocational education because of readiness to study something one is interested in. A few weeks ago, in my office, I received a form three students from one of the public secondary schools in my ward. He asked me to help him leave secondary school and join VETA or any vocational education school. He said he wished to join a training program in automobile mechanics and driving. He is not interested in what he is studying in school. I counselled him based on the fact that without completing form four he may become a good technician but will lack employment qualification in some firms, including the public sector. So, I asked him to complete form four first." (WEO B, May 2025).

This implies that when students are allowed to pursue subjects aligned with their interests, such as vocational training, they are more likely to stay in school and remain motivated. It also shows that the lack of early access to vocational pathways may lead some students to disengage from the traditional academic stream. Additionally, the situation emphasizes the need to balance practical skill acquisition with formal qualifications to ensure employability, especially in regulated sectors. Therefore, implementing the vocational stream within secondary education can address both students' aspirations and job market demands. This view is supported by Niittylahti et al. (2019), who found that student engagement at the beginning of vocational studies is closely tied to overcoming uncertainty and that students' career choices are strengthened through interest in their studies, emotional support, confidence in their abilities, and coping skills. As Rogers (2021) emphasizes, effective implementation also depends on supportive leadership and well-prepared teachers. Integrating vocational pathways into secondary education is not only a response to student needs but a meaningful systemic change that enhances engagement, reduces dropout, and ensures educational relevance. Another interviewee was quoted as saying that:

> "This is going to reduce the unemployment problem facing youths in this country because they will be completing studies with knowledge and skills applicable to our society's daily life. These skills can easily be employed in different public and private firms or be self-employed. "(School 5 academic Teacher, May 2025).

The quotations show that some students in secondary education are more interested in vocational studies than general academic subjects. The 2023 edition of the 2014 ETP addresses this by allowing students to choose vocational education from the start of

secondary school, giving them the chance to gain both practical skills and academic qualifications. This stream includes hands-on training in fields like agriculture, mechanics, and construction, helping students prepare for the job market. These findings align with studies by Makono et al. (2023), Mashingia (2023), Forster and Bol (2018), and Mtebe et al. (2020), who emphasized that vocational training improves skills, boosts teacher-student cooperation, supports technological advancement, and creates clearer career paths ultimately supporting national development goals.

**Compulsory Subjects within the Vocational Education Stream**

Document analysis revealed that students under the vocational education stream in secondary schools have to study four compulsory subjects, which are Historia ya Tanzania na Maadili, English, Mathematics and Business Studies. Teachers believed the stream would prepare competent students due to the compulsory subjects. One of the respondents was quoted as saying:

> "In our societies, we have technicians with some deficiencies; they are not honest, not well disciplined, lack basic arithmetic knowledge, they get money but have poor plans and cannot communicate well. But now I expect competent technicians from this stream, because they are going to study HTM, which will mold their behaviors and attitude, mathematics and business subjects will enable planning and English for good communication." (WEO. C, May 2025).

This shows that vocational education is expected to equip students with technical skills and address essential soft skills such as discipline, communication, and financial planning. Including subjects like HTM, mathematics, business, and English reflect a holistic approach to developing well-rounded, competent technicians. It recognizes that technical expertise alone is not enough without proper behavior, ethical values, and life skills. Therefore, the vocational stream has the potential to produce a new generation of skilled, responsible, and employable graduates who can meet both industry standards and societal expectations. This is supported by Yousaf and Bhatti (2022), who emphasize that effective vocational education must integrate both technical competencies and soft skills to enhance students' adaptability, work ethics, and employability in dynamic labor markets. Similarly, Akinrinola (2020) highlights that without adequate professional training and support, teachers struggle to effectively deliver competency-based education, which includes both technical and soft skills development. Also, another respondent was quoted saying:

> "English subjects in vocational education will enable students to be employed or to employ themselves in various sectors, especially the tourism and hospitality subsector. In hotel management and tourism, one must be conversant in written and spoken English. Waiters, waitresses and tour guides need English to work well." (School 4 academic teachers, May 2025).

This means public secondary schools teachers believed that students under the vocational education stream, upon completing their education, will become competent in their specialised skills and other life skills. These include entrepreneurship skills which will enable us to be employed or employ themselves and become patriotic, accountable and understand national norms and ethics. These findings are supported by Kholifah et al. (2022), who studied whether entrepreneurship education promoted vocational students' entrepreneur mindset. They concluded that vocational education must strengthen digital technology literacy, interest in entrepreneurship and entrepreneurial self-efficacy in shaping entrepreneurial personality. Additionally, according to Handayati et al. (2020), entrepreneurship education positively influenced students' entrepreneurial intention and entrepreneurial mindset. Employers give high priority to employees with strong communication and technical skills (Suhaili & Mohama, 2021).

**Specialization within the Vocational Education Stream**

The vocational education stream is divided into six sub-streams Engineering, Hospitality and Tourism, Agriculture and Livestock, Craft Arts and Performing Arts, Sports, and Information and Communication Technology (ICT) where students receive specialized training alongside four compulsory academic subjects. However, many schools lack trained teachers and critical resources like workshops, laboratories, and modern equipment, making it difficult to effectively deliver the specialized content. Teachers expressed concern over the imbalance between the practical focus of the VETA curriculum and the theory-based TET curriculum and NECTA examinations, noting that general subjects are often prioritized over technical skills. Despite these challenges, they believed that competence-based education can be successful if

curriculum and assessments are better aligned. They also viewed early specialization as a valuable approach to equipping students with relevant skills for self-employment and the job market, potentially helping to reduce youth unemployment. One interviewee was quoted as saying that:

> "This will enable the students to be competent professionals because they are technically practical oriented since the beginning of their secondary education. Therefore, they will be employable upon completion of their secondary education, whether self-employed or secure employment in different firms." (School 6 academic teacher, May 2025).

This quotation implies that public secondary school teachers believed that the specialization within the secondary education vocational stream would lead to preparing competent students in public secondary schools. And that they would be employable due to the specialization in vocational education, which is practical based. Additionally, they viewed that the duration of studying, which is four years, would give the students enough time for their skills development. Therefore, they viewed that specialized courses had more influence on labor market. Their view is supported by Lee and Hong (2025), who asserted that the influence of the vocational education courses in the labor market varies with the level of specificity of the skills covered. Teachers' views were in line with other studies that there was correlation between the study duration and employment. Vocational education training programs with long duration were positively associated with higher employment results and self-employment chances (Abok et al., 2024).

**Curricula Implementation Reflecting Skill Needs in Respective Areas**

Effective curricula implementation requires aligning educational content and teaching methods with the specific skill demands of each discipline to ensure learners are well-prepared for real-world challenges. Implementing the 2023 edition of the 2014 ETP and the innovative curriculum of 2023 ensured that under vocational education stream, the curricula reflected skill needs according to environments and available resources in respective areas. Teachers view this positively because it would positively impact on the students and the surrounding community. One of the respondents was quoted as saying:

> "Education gives meaning when it transforms the student's life and society. Considering the skill needs in respective areas where vocational education is provided means that students will learn to improve what they are doing with their community. This will raise the quality and even the quantity in various sectors of production." (School 2 academic teacher, May 2025).

This means that public secondary school teachers view positively the curricula implementation to reflect the skill needs in respective areas since it aims to solve the needs of a given society and will enable the students to be easily employed or employ themselves. Therefore, the vocational education stream schools, which were being established in different areas, in planning for the sub-streams where students would get specialized training for the skill needs in respective areas were considered. For example, in areas where animal husbandry and crop production were the main economic activities, the Agriculture and Livestock sub stream was prioritized. The finding is in line with the study conducted by George (2025) on economic and employment outcomes of youth vocational education in Tanzania. He discovered that vocational education provided important employment skills, but training should align with labor market requirements. Studies showed that vocational education should play a social role that anchors the development of the communities' collective education, social and economic development (Wheelahan & Moodie, 2025). Vocational education should enable the country to produce what it consumes and set it free from producing what it does not consume (Luhala & Yuting, 2021).

**General Education Stream**

The general education stream refers to the academic path in secondary education that focuses on broad, theory-based learning across various subjects rather than practical or technical skills. It is designed to give students a strong foundation in core academic areas such as Mathematics, English, Science, and Humanities. Students in this stream are prepared mainly for further academic studies rather than immediate entry into the workforce (Kazu & Yalcin, 2021). Upon completion, they are assessed through national examinations administered by the National Examination Council of Tanzania (NECTA) and awarded academic certificates. Regarding teachers' preparedness and acceptance, many educators expressed greater familiarity and comfort with the traditional general education stream due to their academic training and experience (Mokoro, 2020).

However, some teachers showed reservations about the vocational education stream, citing limited training and resources to deliver vocational subjects. Despite this, there is growing recognition among teachers that both streams are essential for addressing diverse student needs and national development goals. However, adequate professional development is needed to strengthen effective implementation of vocational education stream.

**Compulsory Subjects within the General Education Stream**

Document analysis showed that students in the general education stream of secondary schools are required to study six compulsory subjects: Historia ya Tanzania na Maadili (HTM), English, Mathematics, Kiswahili, Geography, and Business Studies. However, teachers expressed concern that it is too early for one student to stop studying science subjects, recommending that biology, chemistry, and physics remain compulsory up to form two. One academic teacher emphasized, "We are in the world of science and technology, where science is highly applied, science subjects should be compulsory up to form two. Biology, chemistry and physics should be for all students up to form two" (School 4 academic teacher, 2025). This perspective reflects the belief among public secondary school educators that all students should receive a foundational science education due to its practical applications in everyday life. Research supports this view, highlighting science as a global necessity and emphasizing that cultivating a scientifically literate population is essential for societal success, fostering critical thinking and innovation (Calo & De Vera, 2025). Furthermore, Alam (2023) underscores that science education is vital for sustainable national development. Therefore, compulsory science education to form two is crucial to preparing a competent workforce capable of meeting local and international demands.

**Specialization within the General Education Stream**

The general education stream in secondary schools is divided into eleven sub-streams, allowing students to specialize in subjects within one category alongside six compulsory subjects. Teachers see this specialization as beneficial because it aligns students' interests with future careers and enables deeper learning by reducing the number of subjects studied. However, they expressed concerns about shortages of qualified teachers and inadequate resources, especially for practical subjects like ICT and Sports. One teacher noted that specialization would improve competence if schools received proper facilities and teacher training (School 6 academic teacher, 2025). These views are supported by studies showing that subject specialization helps students succeed in higher education and employment by fostering focused and cumulative knowledge development (Hipkins & Vaughan, 2019; Welter et al., 2022).

**Introduction of New Subjects**

Three new subjects—Business Studies and Historia ya Tanzania na Maadili (HTM) as compulsory, and Computer Science as optional—were introduced in both general and vocational education streams. Teachers viewed these subjects as crucial for preparing competent students with practical skills and national values. One head of school stated, "Business studies will enable people to gain entrepreneurship knowledge necessary in most aspects of life. Computer Science is vital for the 21st century, while HTM builds patriotism, ethics, and a positive attitude towards our nation, equipping students for sustainable development" (Head of School 3, May 2025). This highlights the importance of integrating entrepreneurship, ICT, and civic education to develop future-ready learners, aligning with Kurangking et al. (2023) in emphasizing deep learning and moral purpose. However, challenges like inadequate staffing and delayed learning materials, noted by a School 4 teacher, threaten effective implementation. Supporting research underscores these subjects' potential to enhance ICT skills, patriotism, and entrepreneurial attitudes but stresses the need for sufficient resources to ensure success (Simulwi & Musonda, 2020; Al-Najjar & Abed, 2021; Malebana & Mothibi, 2023).

**Practical Oriented Learning and Teaching**

The 2023 edition of the 2014 ETP emphasizes practical-oriented learning and teaching. Teachers view practical-oriented learning and teaching as a helpful approach in preparing competent students. Still, they think it may be unsuccessful due to inadequate material and human resources. One respondent was quoted as saying:

> "The policy seeks more practical-oriented learning and teaching, which will help to prepare students with skills that may be applied in their real life; however, this will be attained only if enough teaching and learning materials are provided with an adequate number of teachers and a lack of laboratory technicians." (School 2 academic teachers, May 2025).

This quotation implies that the emphasis of practical-oriented learning and teaching pointed out in the 2023 edition of the 2014 ETP would prepare competent students in public secondary schools. Still, the implementation policy faces inadequate material and human resources. The schools have no laboratory technicians, which worsens the problem of inadequate teachers for science and teaching practical. The findings are supported by Chala (2019), who states that limited laboratory equipment and supply, laboratory manual, laboratory rooms, class size and ICT access are challenges that face implementing practical work in natural science subjects in secondary schools. Similarly, Makoro (2020) established that competence-based curriculum is ineffective in secondary schools due to a shortage of laboratory facilities. Therefore, the government and other stakeholders should ensure provision of all necessary laboratory facilities, employ teachers and laboratory technicians to effectively implement the 2023 edition of the 2014 ETP to prepare competent students in public secondary schools.

## CONCLUSION

The study concluded that teachers' perceptions of the implementation of the 2023 edition of the 2014 Education and Training Policy (ETP) in public secondary schools are largely positive, particularly regarding the integration of vocational pathways, new subjects, ICT, and student-centered approaches aimed at producing competent students. Teachers recognize the potential of vocational streams to increase student retention, develop practical skills aligned with labor market needs, and foster entrepreneurial and soft skills essential for national development. Similarly, the introduction of new subjects such as Business Studies, Computer Science, and HTM reflects a strategic effort to equip students with relevant knowledge and competencies for the 21st century. However, significant challenges hinder effective implementation, including inadequate resources such as teaching and learning materials, laboratory facilities, and ICT infrastructure as well as insufficient teacher training and professional development. These shortcomings limit teachers' capacity to deliver practical, student-centered, and competency-based education effectively. Consequently, while the policy aligns with the broader goal of producing skilled, responsible, and employable graduates, its success depends on addressing these systemic gaps through resource allocation, capacity building, and sustained support for teachers and infrastructure development.

## RECOMMENDATIONS

To realize the full potential of the 2023 ETP in preparing competent students, it is essential for the government and stakeholders to prioritize comprehensive resource provision and capacity building. Firstly, the government should allocate adequate funding to supply schools with necessary teaching and learning materials, laboratory equipment, and ICT facilities, ensuring that both general and vocational streams are well-equipped to deliver practical and theoretical content effectively. This includes establishing and maintaining modern laboratories, procuring relevant ICT tools, and providing learning resources in a timely manner. Secondly, a robust professional development framework should be instituted to provide continuous, in-service training tailored to the new curriculum's demands. This training must be inclusive, long-term, and practical, equipping teachers with the pedagogical skills necessary for competency-based, student-centered, and practical-oriented teaching approaches. Additionally, involving teachers in curriculum review and resource planning will foster ownership and ensure contextual relevance. Finally, policymakers should establish monitoring and evaluation mechanisms to assess implementation progress, address emerging challenges promptly, and adapt strategies accordingly. Through these concerted efforts, the implementation of the education policy will be strengthened, ultimately enhancing the quality and relevance of secondary education and better preparing students for the labor market and societal development.

## REFERENCES

Abok, C. A., Ocharo, K. O., & Gudo, C. O. (2024). Effect of nature of technical vocational education and training academic programs on employment category status of graduates of national polytechnics in Kenya: A multinomial logistic approach. *International Journal of Vocational and Technical Education Research, 10*(2), 1–14.

Akinrinola, F. (2020). Competency-based education in Africa: Exploring teachers' perceptions, understanding, and practices. *Teacher Education through Flexible Learning in Africa (TETFLE)*, 2(1), 1–24.

Alam, G. M. (2023). *Has Secondary Science Education Become an Elite Product in Emerging Nations? —A Perspective of Sustainable Education in the*

*Era of MDGs and SDGs. Sustainability 2023, 15, 1596*.

Al-Najjar, H. A., & Abed, M. G. (2021). Curriculum and its Role in the Development of Moral and Patriotism Values Amid the Youth. *i-Manager's Journal on Educational Psychology*, *15*(1), 43.

Budi, G. S., & Farcis, F. (2021). Students' critical thinking skills in innovating problem solving in the physics entrepreneurship course. *Berkala Ilmiah Pendidikan Fisika*, 9(1), 39–46.

Calo, J. R., & De Vera, M. (2025). The quality of science education: Viewpoints of secondary school science teachers. *Journal of Research in Education and Pedagogy*, *2*(1), 95-109.

Chala, A. A. (2019). Practice and challenges facing practical work implementation in natural science subjects at secondary schools. *Practice*, 10(31), 1–17.

Chuene, D. M., & Teane, F. M. (2024). Resource inadequacy as a barrier to effective curriculum implementation by life sciences teachers in South Africa. *South African Journal of Education*, *44*(2).

Deng, L., Wu, Y., Chen, L., & Peng, Z. (2024). 'Pursuing competencies' or 'pursuing scores? High school teachers' perceptions and practices of competency-based education reform in China. *Teaching and Teacher Education*, 141, 104510.

Flick, U. (2018). *An introduction to qualitative research* (6th ed.). SAGE Publications.

Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.

George, W. (2025). Economic and Employment Outcomes of Youth Vocational Education in Tanzania. *Tanzanian Economic Review*, *15*(1), 78-104.

Glette, M. K., & Wiig, S. (2022). The headaches of case study research: A discussion of emerging challenges and possible ways out of the pain. *The Qualitative Report*, *27*(5), 1377-1392.

Hipkins, R. & Vaughan, K. (2019). *Subject choice for the future of work: Insights from research literature*. Productivity Commission Technical Report, New Zealand.

Kabombwe, Y. M., & Mulenga, I. M. (2019). Implementation of the competency-based curriculum by teachers of history in selected secondary schools in Lusaka district, Zambia. *Yesterday and Today* (22), 19–41.

Kazu, I. Y., & Yalcin, C. K. (2021). The effect of stem education on academic performance: A meta-analysis study. *Turkish Online Journal of Educational Technology-TOJET*, *20*(4), 101-116.

Kiwonde, F. M. (2018). Effectiveness of ict teachers' training programmes in enhancing teaching and learning of environmental education in selected primary schools in Musoma District (*Doctoral dissertation,* The Open University of Tanzania).

Kocaman, R. (2025). A Practical Guideline for Addressing Data Trustworthiness in Qualitative Research. In *Qualitative Research Methods for Dissertation Research* (pp. 317-346). IGI Global Scientific Publishing.

Kurangking, J., Santander, M., Du, E., & Cimene, F. T. (2023). Empowering nations through education: Strategies for sustainable development. *Pampanga.* Beyond Books Publication.

Lee, H., & Hong, I. (2025). Quantifying the influence of Vocational Education and Training with text embedding and similarity-based networks. *arXiv preprint arXiv:2503.17931*.

Lewis, M. P. (2022). *An evaluation of the competency-based education and training Commis Chef Level Two programme in four human employment and resource training institutions in Jamaica* (Doctoral dissertation, University of Technology, Jamaica).

Mahara, K. K. (2024). Receiving and implementing in-service teacher training programmes: identifying challenges from teachers' perspectives. *KMC Journal*, *6*(1), 153-175.

Makono, J., Mkulu, D., & Mwamakula, F. (2023). Integration of Vocational Education and Training in Public Secondary Schools: A Study of Nzega Town Council, Tabora Region, Tanzania. *Canadian Journal of Educational and Social Studies*, *3*(6), 129-148.

Malebana, M. J., & Mothibi, N. H. (2023). Relationship between prior entrepreneurship exposure and entrepreneurial intention among secondary school learners in Gauteng, South Africa. *Journal of Innovation and Entrepreneurship*, *12*(1), 43.

Mashingia, K. (2023). Assessment of the implementation of practical skills in the secondary school curriculum for the realization of Vision 2025 in the Kilimanjaro region, Tanzania. *International Journal of Curriculum and Instruction*, 15(3), 1622–1647.

Mathias, L., Mwamakula, F., & Mhagama, M. (2023). Challenges facing public secondary school teachers on implementing competence-based

curriculum in Magu District, Mwanza-Tanzania. *International Journal of Social and Development Concerns*, 18(13), 160–172.

Ministry Of Education, Science and Technology (2025). *Education Sector Development Plan 2025/26 – 2029/30.* Ministry Of Education, Science and Technology

Mitra, D., & Purnawarman, P. (2019). Teachers' perception related to the implementation of Curriculum 2013. *Indonesian Journal of Curriculum and Educational Technology Studies*, 7(1), 44–52.

Mokoro, D. (2020). Perception of teachers on their preparedness for implementation of the competence-based curriculum among secondary schools in Arumeru District, Tanzania. *East African Journal of Education and Social Sciences (EAJESS)*, 1(2), 109–117.

Mrosso, V., & Ndibalema, P. (2024). Teachers' Perceptions on the Role and Challenges of Using ICT in English Language Classrooms. *International Journal of Technology in Education and Science*, *8*(1), 121-137.

Namubiru, A., Kisembo, M., Kasiita, T., Kagambe, E., & Kasiita, T. (2024). Perceptions of teachers on the implementation of the competence-based curriculum in secondary schools in Bundibugyo and Ntoroko districts, Uganda. *East African Journal of Education Studies*, 7(3), 13–27.

Nawastheen, F. M. (2021). Sri Lankan teachers' concerns towards the implementation of curriculum reforms in the competency-based curriculum reforms. *Muallim Journal of Social Sciences and Humanities*, 5(1), 1–18.

Niittylahti, S., Annala, J., & Mäkinen, M. (2019). Student engagement at the beginning of vocational studies. *Nordic journal of vocational education and training*, *9*(1), 21-42.

Nkya, H. E., Huang, F., & Mwakabungu, F. (2021). Implementation of competence-based curriculum in Tanzania: Perceptions, challenges, and prospects. A case of secondary school teachers in Arusha Region. *Journal of Education and Practice*, 12(19), 34–41.

Nyoni, K. Z. (2018). Challenges facing teachers in Tanzania: The implementation of the paradigm shift towards a competence-based curriculum in ordinary level secondary schools in Iringa municipality. *Kervan. International Journal of African and Asian Studies*, 22.

Oranga, J., & Matere, A. (2023). Qualitative research: Essence, types and advantages. *Open Access Library Journal*, *10*(12), 1-9.

Patton, M. Q. (2002). *Qualitative research & evaluation methods*. Sage.

Ramos Solis, R. (2020). *Competency-based curriculum implementation in Peru* (Master's thesis, University of Oslo).

Rogers, A. P. (2021). Exploring secondary teachers' perspectives on implementing competency-based education. *The Journal of Competency-Based Education*, 6(4), 195–244.

Roshid, M. M., & Haider, M. Z. (2024). Teaching 21st-century skills in rural secondary schools: From theory to practice. *Heliyon*, 10(9).

Segera, S. M., Ndanu, C., & Wambiya, P. (2024). Teachers' preparedness to implement the competency-based curriculum in junior secondary schools in Starehe Sub-County, Nairobi County, Kenya. *Journal of Popular Education in Africa*, 8(10), 5–16.

Siegel, L. (2024). *Educating for global competence: Teachers' perceived barriers to global competence education implementation in a small, rural school district* (Doctoral dissertation, University of Illinois at Urbana-Champaign).

Simulwi, L., & Musonda, E. (2020). The impact of compulsory computer studies on ICT literacy at junior secondary schools in livingstone district. *International Journal of Information and Communication Technology Education (IJICTE)*, *16*(4), 20-34.

Smith, J., & Brown, A. (2023). Exploring research approaches in social sciences. *Journal of Research Methods*, 12(3), 45–60.

UNEP. (2024). *Implementation of decision 5/4 on the provisional agenda, dates and venue of the sixth session of the United Nations Environment Assembly.* United Nations Environment Programme

United Republic of Tanzania (URT). (2023). *Education and Training Policy of 2014, 2023 Edition*.

Wang, X., & Davis, R. (2024). Incorporating purposive sampling in cross-cultural research: Addressing challenges and enhancing validity. *International Journal of Intercultural Relations*, 32(1), 88–103.

Welter, V. D. E., Herzog, S., Harms, U., Steffensky, M., & Großschedl, J. (2022). School subjects' synergy and teacher knowledge: Do biology and chemistry teachers benefit equally from their

second subject? *Journal of Research in Science Teaching*, *59*(2), 285-326.

Wheelahan, L., & Moodie, G. (2025). What do vocational colleges do and why do they matter? Thinking about the role of colleges as local actors. *Journal of Vocational Education & Training*, *77*(1), 36-57.

Yousaf, M., & Bhatti, A. A. (2022). Impact of Technical and Vocational Education and Training on Poverty Alleviation through Skill Acquisition: Evidence from Developing Countries. *NICE Research Journal*, 64-86.

Zenda, R. (2024). The importance of teaching resources on Physical Sciences learners' academic achievement in rural schools: A case of South Africa. *Social Education Research, 5*(2), 407–420.