

Policy commitment verses practice: an empirical analysis of pedagogical resources. A case of secondary schools in Mpimbwe District Council, Katavi Region, Tanzania

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Abstract

This study examined the availability and adequacy of teaching and learning resources in secondary schools within Mpimbwe District Council in Katavi Region, Tanzania. The aim was to understand the reality of secondary schools in the process of implementing the policy statement on provision of pedagogical resources. The study employed a qualitative research approach with case study design. The Systems theory and the Questions of Curriculum theory navigated the study. The data were collected from 36 participants through questionnaires for teachers and interviews with school heads. Documents review and observations were done by the researchers. Purposive sampling technique was used to select heads of school, and simple random sampling was used to select teachers. Methods for data analysis were thematic analysis and descriptive statistics. The findings revealed that teaching and learning resources seem to be sufficient but with limitations. Also, there is a need of staff development trainings. Conclusion is made that since more government secondary schools are established, teaching and learning resources are to be allocated with required ratio. Recommendations were given that heads of school and teachers have to have positive mind-set in implementation of such policy statement. Also, the government should continue to conduct trainings to teaching staff.

Keywords: Adequacy, availability, education and training policy of 2014 (2023) edition, pedagogical resources, secondary schools, 21st century skills

1. Introduction

Teaching and learning materials are crucial elements of curriculum that facilitate the effective delivery of education and training, and play a central role in implementing education and training policies. Other crucial elements which influence the implementation of education and training policies include: the philosophy of education and training, the system and structure of education and training, the student, the teacher, the subject content, the milieu, and the assessment (Dillon, 2009; MoEST, 2023a). According to UNESCO (2020a), teaching and learning materials serve as key tools that enhance students' understanding and engagement, thus directly impacting learning outcomes. The availability and quality of these materials often reflect the commitment of policymakers to achieving educational goals. Education and training policies represent a set of values and decisions about what education should entail, including who learns what, how it is taught, and how it is governed. These policies outline goals, policy statements and strategies required to achieve the planned objectives, while also emphasising the importance of the policymaking process and stakeholder involvement (Dye, 2017; MoEST, 2023a; Reimers, 2019; UNESCO, 2020a). Therefore, effective implementation of educational policies depends much on the availability of supportive resources, including manpower, teaching, and learning materials and infrastructure, which align with the goals of improving student learning and ensuring quality education. For this reason, education policies are dynamic and continuously evaluated to remain relevant to current social and economic needs (Dye, 2017; MoEST, 2023a; Reimers, 2019; UNESCO, 2020a).

Likewise, Fan and Popkewitz (2020) comment that education policy is not just about setting high-level goals or mandates; it fundamentally shapes and is shaped by what happens in classrooms through interconnected systems such as curriculum design, assessment structures, and teaching and learning materials. They emphasize that these components act as the mechanisms through which policy becomes reality. A curriculum reflects what is valued in a particular education system, assessments define how learning is measured and prioritized, and teaching and learning materials are the practical tools that support instruction and student engagement. Hence, unless these systems are carefully aligned with policy goals, even the most well-intentioned education reforms may fail in implementation. Also, Fan and Popkewitz (2020) highlight that global and local contexts matter; policies and materials must be responsive to cultural, linguistic, and socio-political realities to be effective. This comprehensive approach underscores the need for a systemic view of education policy, where materials are not peripheral but central to delivering equitable, high-quality learning experiences (Fan & Popkewitz, 2020).

Further, in the book "Education in West Africa" the editor Takyi-Amoako (2023) analyses deeply into the complexities of West African education systems, tracing how the region's colonial history has left enduring impacts on language policies, curriculum frameworks, and governance structures that continue to influence educational access and quality. The book

stresses that teaching and learning materials are not just supplementary tools but central to the successful enactment of education policies, especially those aimed at expanding access and improving learning outcomes. The book highlights how many West African countries face persistent challenges in producing or procuring sufficient textbooks and instructional materials that are linguistically and culturally appropriate for diverse student populations. The limited capacity of local publishing industries means many materials are imported, often mismatched to local curricula or contexts. Moreover, poor infrastructure, such as inadequate storage and distribution networks, worsens inequities between urban and rural schools, making it difficult for all learners to benefit equally. Funding shortfalls further restrict governments' ability to address these gaps. The book put forward that meaningful policy reforms must therefore, be accompanied by strategic investments in material development, local content creation, and supply chain improvements (Takyi-Amoako, 2023). In a similar context explained by Takyi-Amoako (2023) also, Kamil (2024) investigated on Ghana's free education policy and challenges of infrastructure and teaching-learning materials. This was a situational study done at the public senior high schools in the Tamale Metropolis. The study aimed to find out challenges encountered due to the introduction and implementation of fee free education system in Ghana. The study suggested that without coordinating investment in infrastructure, resources, and professional development, free education policies fall short of their intended impact. In Ghana, the rapid increase in student enrolment due to the policy led to significant shortages in essential resources such as textbooks, reference materials, and infrastructure like classrooms and dormitories.

However, in the context of Tanzania, this study examined policy statement commitment on availability and adequacy of teaching and learning resources and its' implementation in secondary schools. In this article the concept of teaching and learning resources has been also referred to as pedagogical resources. These resources include ICT infrastructure, high-quality books and materials, digital tools and equipment, and physical infrastructure such as classrooms and laboratories (MoEST, 2023a). As for this study the resources which were examined in the studied schools were only computers and books related materials which were distributed by the government. The rationale for conducting this study could be traced since 2014 when the previous Education and Training Policy of 2014 was introduced, and resulted to Fee-Free Basic Education Policy (FFBE) of 2015. In 2016, the FFBE Policy started to be implemented in the government schools from pre-primary, primary to lower secondary schools. Also, in 2022, the government announced fee-free education to the advanced level (MoEST, 2023a; MoEST, 2016). In particular, the achieving results of implementation of fee-free education were the increase of number of students enrolled in all levels of education and training. Due to this achievement different needs arose in order to enhance teaching and learning in schools. One of the needs in schools was to get more teaching and learning resources for effective implementation of the policy (Makala, 2023; MoEST, 2023a). For example, evidence was shown that the government distributed about 42, 377 desktop and laptop computers equivalent to a ratio

of 1:67, meaning one computer for 67 students for secondary schools in the country. In addition, there was an alarming disparity of books distribution ratios of 1:5 for science subjects, 1:6 for language subjects, and 1:12 for social studies (MoEST, 2023b). These challenges threaten the successful realisation of the policy's objectives. However, in 2023 the Education Circular No 5 of 2023 gave directives to different levels of education and training to implementing the current Education and Training Policy 2014 (2023) Edition from January 2024 (MoEST, 2023c). This Policy introduces more accommodating reforms in education and training sector in order to align with international and national socio-economic development. Such reforms include: establishment of inclusive system of education and training, introduction of the new national education and training system from 2+7+4+2+3+ to 1+6+4+2/3+3+, provision of general and vocational education pathways at different levels of education and training. Other reforms are: introduction of new curricula with emphasis on competence-based learning, together with integration of practical and vocational skills, reduction and introduction of subject. In addition, early introduction of technology and digital skills, continuous assessment, the use of pedagogical resources for 21st century skills together with stronger link between education and training, and labour market (MoEST, 2023a; MoEST, 2023c; UNESCO, 2020b).

Thus, by the time this study is conducted that is 2025 it seemed to be timely to examine the implementation of the policy statement indicated in Section 3.6.4 of the Education and Training Policy of 2014 (2023) Edition. The statement put forward that the government will ensure the availability of appropriate teaching and learning materials, tools, and resources at all levels of education and training. The objective of this study therefore, was to examine the availability and adequacy of teaching and learning resources as an implementation of the studied Education and Training Policy. For this reason, this study is paramount to be conducted as a contribution to the process of delivering education and training in the era of science and technology.

2. Literature Review

2.1 Theories used in the Study

This study adopts two theories in navigating the inquiry. The Systems Theory founded by Ludwig von Bertalanffy in 1968; and the Theory on Questions of Curriculum proposed by Dillon in 2009. The Systems Theory was used as a framework to examine how Tanzania's Education and Training Policy commitment regarding teaching and learning resources is translated into practice (ref. section 1.0 of this article). According to Bertalanffy (1968), the education system is conceptualized as an interconnected system in which policies, resource allocation, school processes, and monitoring mechanisms interact. In examine inputs, processes, outputs and feedback, this study identifies the reality between policy statement on teaching and learning materials in schools and the practical implementation of the policy intentions. Regarding Dillon's theory, teaching and learning resources are considered one of the elements of curriculum. In the 21st century Dillon (2009) emphasizes the praxis-oriented approaches to

teaching and learning. Thus, this theory intends to add knowledge on the discussion of the emerged themes of the study.

2.2 Previous Related Studies

Scholars from different or similar contexts of study have inquired on policy matters and teaching and learning resources. For example, Pellegrini and Vivanet (2020) conducted a study on evidence-based educational policies in Europe: challenges and initiatives. The study employed a qualitative approach with extensive and comprehensive review and analysis of existing literature and policy documents. The purpose was to identify key initiatives and challenges in the development of evidence-based educational policies. The authors highlight the importance of contextual relevance, stressing that policies that work in one setting may not be successful in another due to differences in educational systems, cultures, and resources. The study calls for greater collaboration between policymakers, educators, and researchers to ensure that evidence-based practices are appropriately tailored and effectively communicated. This study seems to contribute to the current study since it is an extensive and comprehensive review which might show light to the empirical study in secondary schools at Mpimbwe District Council.

Further, Magaju, Kubai, and Kanyi (2024) studied on preparedness in instructional materials for the implementation of the Mother Tongue Education (MTE) policy in public lower primary school education in Meru County, Kenya. The study employed a descriptive survey design with a mixed-methods approach. The study targeted 773 grade three class teachers and 773 head teachers, selecting a sample of 155 head teachers and 155 grade three class teachers through simple random and purposive sampling techniques. The data were collected using questionnaires administered to grade three class teachers and focus group discussions with head teachers. The findings revealed a significant shortage of textbooks, reference materials, and instructional resources for teaching indigenous languages. Additionally, learners faced challenges with existing orthographies, and teachers encountered difficulties in utilizing available materials for language skills development. A notable correlation was found between the preparedness of instructional materials and the successful implementation of the MTE policy. The Kenyan study highlights a strong connection between the availability of quality instructional materials and the successful implementation of education policies. Magaju et al. (2024) identify a clear correlation between material preparedness and policy success. Also, by incorporating classroom observations and teacher interviews deepened understanding of how these materials impact teaching practices. The study by Magaju et al. (2024) assisted researchers of the present study to see the necessity of using more than one research tools to collect information on the study based on policy statement on teaching and learning materials, and its practice in secondary schools.

With the current study questionnaires, interview guide questions, documents, and observation tools used assisted in understanding of the reality between policy commitments and actual practices in schools.

Furthermore, Ndomondo (2024) inquired on instructional resources for innovative history teaching and learning in Tanzania secondary school: exploring availability and utilization. Hermeneutical phenomenological research design was employed to explore history teachers' perspectives on the availability of instructional resources and their use in supporting the learning of history subject in secondary schools. Eleven history teachers from six lower secondary schools were involved. Data collection tools were classroom observation, semi-structured interviews, and documents review. The analysis of the data was done in content-wise. Together with other findings, the study revealed an acute shortage of textual and technological resources. Thus, the findings call for deliberate measures to improve the availability of instructional resources for history teaching in schools. The study recommends for a clear description of instructional resources in the history syllabus, continuous teachers' training on the use of technological resources and adjustment of the school timetables to provide adequate time for the history subject. These assist in improving the utilization of instructional resources in history teaching. The study by Ndomondo (2024) shade light to the current study on types of teaching and learning resources needed in the 21st century.

Similar to Ndomondo (2024), Munisi, Mtoi and Kawishe (2026) investigated on how History teachers in public secondary schools within Meru District Council, Arusha Tanzania, improvise teaching and learning materials amid resources constraints. The study employed a qualitative research approach with case study design from three PITA Project secondary schools. The research tools used were observations, questioners, and document reviews. Findings reveal that teachers often with students create visual, environmental, and digital teaching materials using local available resources. Although the Ministry of Education Science and Technology had made some reforms to facilitate teaching and learning resources, challenges such as limited funding, time constraints, overcrowded classrooms, limited-time for improvising materials, and lack of space for storage of materials persist. The study concludes that it is necessary to use both the improvised and ready-made materials. Recommendations were made that teachers should integrate technological devices with improvised resources. This study widens understanding of using improvised and ready-made resources including computers, tablets and smart phones.

3. Methods

3.1 Research Approach and Design

The study employed a qualitative approach with a case study design (Creswell & Creswell, 2023). This approach assisted in obtaining rich, detailed information and develop a deeper understanding of how the Education and Training Policy of 2014 (2023) Edition is implemented. In particular, how secondary schools in Tanzania avail and use pedagogical materials. Regarding the design, a single case study design was opted focusing on secondary schools in Mpimbwe District Council. This case design assisted in gaining concrete, contextual, and in-depth knowledge of the issue being studied (Creswell & Creswell, 2023, Yin, 2018). The design structured the research and assisted to ensure all major components worked together to address

the research objective (refer. section 1.0 of this article). The approach and its design also, directed the processes of data collection, analysis, and interpretation by ensuring consistency and alignment throughout the study (Creswell & Creswell, 2023).

3.2 Area of the Study, Population and Sampling

Mpimbwe District Council was an area where the study was conducted. This area is located in the Southern part of Katavi Region. The administrative boundaries include: Nsimbo District Council to the North, Mlele District Council to the East, and at the South-West are the Districts of Rukwa Region, and at the West is Mpanda District-urban area and Katavi National Park. The Headquarters and administrative offices are located in Usevya Ward of Mpimbwe District. The main economic activities at Mpimbwe District Council include agriculture, livestock keeping, fishing, forestry and natural resources, together with small-scale trading. As for education and training context, Mpimbwe District Council shows steady progress, with government support for school expansion, teachers' recruitment, and provision of learning materials. However, the District continues to face challenges with infrastructure, teacher shortages and resource shortages which directly affect the systems within education and training operations (<https://katavi.go.tz>). According to MoEST, 2023b), the Mpimbwe District Council has 10 secondary schools with 123 teachers. The study focused on three public secondary schools. In each school 12 participants were intended to be involved in the study. This includes 1 head of school, and 11 teachers. Therefore, a total of thirty-six (36) participants involved in the study, consisting of three (3) heads of school, and thirty-three (33) teachers. In this study, the researchers calculated the sample size as 30% of the total population of 123 to get the sample size of 36 participants. Purposive and simple random sampling techniques were used to obtain heads of school and teachers for data provision (Haute, 2021; Mugenyi & Mokoro, 2022).

3.3 Data Collection, Analysis, and Trustworthiness

The process of collecting data involved tools which are questionnaires with close and open-ended questions. These questionnaires were distributed to teachers. Also, interview guide questions were addressed to heads of school. The interview guide had structured and unstructured questions to facilitate face to face responses. Documents such as teachers' lesson plans, scheme of work, textbooks, subject syllabai, copies of lesson notes and policy related documents were also used in data collection. In addition, the researchers were involved in observation of visible resources, guided by observation checklists. The checklists had a column for information Communication Technology related resources, and another column for books related resources. The data were analysed using thematic analysis method by using coding scheme which categorized the main theme and sub-themes. In addition, the quantitative data were analysed descriptively by using the SPSS (version 23) which provided results in form of frequency and percentages (Cohen, Manion & Morrison, 2018; Creswell & Creswell, 2023). The

trustworthiness of the data was ensured by looking at the credibility of the available information from participants via different tools together with supportive literature and theories in interpretation of the data. This process took time in rechecking the accuracy of the data and researchers to familiarise with the study. The dependability of the data was evidenced by the use of more than one method of data generation that is questionnaires, interviews, document review, and observations. Also, the confirmability of study was adhered by supporting the findings with quotations from the responses given or supportive literature. As for transferability of the findings, researchers traced the historical background of the context of the study as well as related literature (ref. section 1.0 & 2.0 of this article). This was linked with the findings of the study. Thus, there is a possibility of using the findings and supportive literature in other similar studies with different contexts (Creswell & Creswell, 2023; Guba & Lincoln, 1989; Nowell et al., 2017). Regarding research ethical consideration, the researchers obtained official permissions through institutional channels at Tumaini University Makumira, and Mpimbwe District Council. Also, the informed consent forms were voluntarily signed by all participants. Confidentiality and anonymity were strictly maintained (Creswell & Creswell, 2023).

4. Results

The results from this study are presented from the data collection tools; questionnaires, interviews, documents, and observations. The objective was to examine the availability and adequacy of teaching and learning resources as practically implemented in the studied secondary schools. In this section, the three secondary schools involved are identified as School-1, School-2, and School-3. The heads of school who were involved in interviews are also named as HoS-1, HoS-2, and HoS-3. Responses from teachers were anonymously analysed descriptively and reported quantitatively. Therefore, the results section is divided into the demographical information part and the main objective part where the data is presented in several sub-sections.

4.1 Demographic Information

The background information of the participants involved in the study is explained by categorising their age, gender, and working experiences as presented in Table 1.

Table 1: Participants' age, gender, and working experience

Demographic Category	Interval/type	Frequency	Percentages (%)
AGE	18-27 years	3	8.3
	28-37 years	15	41.7
	38-47 years	16	44.4
	48-57 years	2	5.6
	Total	36	100.0
GENDER	Female	9	25.0
	Male	27	75.0

	Total	36	100.0
WORKING	Less than a year	2	5.6
EXPERIENCE	2years	3	8.3
	3years	2	5.6
	4years	4	11.1
	5 years and above	25	69.4
	Total	36	100.0

Source: Field Data, (March 2025)

The data in Table 1 shows that the researchers used a total of 36 participants. Majority of the participants were males (75%) followed by the minority (25.0%) of female participants. This implies that male teachers are more than female teachers in the researched schools. This might be due to the geographical reasons as Mpimbe District Council is within a recent established Region of Katavi. The assumption was made that yet good infrastructures and nearby accommodation around schools werestill needed to facilitate female teachers who stays with their children. Further, participants were categorized according to their age including: 8.3 % of participants were between 18-27 years, 41.7% of the participants were between 28-37 years old, 44.4% of the participants' aged between 38-47 years, and those who aged between 48-57 years were 5.6% of the participants. This implies that the majority of the participants were between 28-47 years. Assumption was made that these participants might have served for a long period of time outside and within the research schools. Thus, their contribution to the study could be valuable. Furthermore, the demographic information on working experience evidence that 69.4% of the participants had worked for five years and above. This implies that the participants involved in the study were experiences with the new reforms in the sector of education and training. In addition, the participants might have engaged in the use of avail teaching and learning resources. Hence, the demographical information enhanced the trustworthiness of the data presented.

4.2 Availability and Adequacy of Pedagogical Materials

The main theme of the study was the availability and adequacy of teaching and learning resources. The sub-themes emerged include: pedagogical materials (computers and books), pedagogical materials related to the curriculum goals, digital and online pedagogical materials, and training teachers on the use teaching and learning materials. This is shown in Table 2

Table 2: Availability and adequacy of pedagogical materials

Themes on Teaching and learning Materials	Response items	Frequency	Percent
Pedagogical Materials especially books and computers	Sufficient	6	18.2
	Neutral	9	27.3
	Insufficient	18	54.5
	Total	33	100.0
Pedagogical Materials like Books Related to the Curriculum Goals	Fully related	3	9.1
	Mostly related	10	30.3
	Partially related	16	48.5
	Minimally related	4	12.1
Total	33	100.0	
Digital Pedagogical Resources and Online Materials like e-books, computers	Yes, completely accessible	1	3.0
	Partially accessible	16	48.5
	Rarely accessible	14	42.4
	Not accessible at all	2	6.1
Total	33	100.0	
Training teachers to use teaching and learning materials	Strong agree	3	9.1
	Agree	10	30.3
	Neutral	13	39.4
	Disagree	6	18.2
	Strong disagree	1	3.0
Total	33	100.0	

Source: Field Data, (March 2025)

4.2.1 Pedagogical Materials

The data from the questionnaires presented in Table 2 show that a total of 18 (54.5%) participants reported that the resources provided for teaching and learning were insufficient. In contrast, only 6 (18.2%) participants commented that the resources were sufficient, while 9 (27.3%) participants were neutral. These data suggest a notable concern among respondents regarding the availability and adequacy of pedagogical resources within their schools. This perception was further reinforced by qualitative data obtained from interviews with the school heads. For instance, HoS-1, explained that:

I...think my school has neutral... I mean average access to teaching and learning materials. This is because I have few computers, with no experts or computer teachers. The computers are kept in a certain class because my school has no computer labs. This is very risky (Interview with HoS-1 on March 13, 2025).

The Head of School-1 continued to say that, “access is often limited by budget, infrastructure, and the school’s location” (Interview with HoS-1 on March 13, 2025). Another HoS-3 said that:

The availability of materials could be rated as sufficient although the school has access to the available teaching and learning materials. My school has some computers. Computers are kept in class where teachers are free to use them in preparation of lessons. Other available materials are books, but a few compared to the number of students (Interview with HoS-3 on March 13, 2025).

The Head of School-2 claimed that “teaching resources like computers are sufficient the problem is funds to maintain them. Also, sometimes we don’t have a stable source of power” (Interview with HoS-2 on March 04, 2025). Regarding books, the HoS-2 said that “we strive to have enough books due to new curricula introduced in schools” (Interview with HoS-2 on March 04, 2025).

Furthermore, according to the document review, the researchers noticed that there is inadequate supply of textbooks in schools, which seriously hinders the successful implementation of the education and training policy under this study. The general observations made by the researchers showed that at School-1 and School-3 a number of computers were available. Few of them were used in Computer Science subject with form one students. In School-2 computers were available and being used by teachers and students. In addition, all schools have some books available for teaching and learning but not enough compared to the number of students. Hence, the data indicated that pedagogical resources (computers and books) seem available in studied schools but limited with some challenges like shortage of power, new introduced syllabuses and a greater number of the users of those materials. However, the sufficiency of teaching and learning materials depend on the context of the school.

4.2.2 Pedagogical Materials and Curriculum Goals

The data from the questionnaires presented in Table 2 indicate that a large number of 16 (48.5%) participants perceive the pedagogical materials as partially related to curriculum goals. 10 (30.3%) participants were of the view that these materials were mostly related to the curriculum objectives. While, 3 (9.1%) participants view the materials as fully related to curriculum goals. and 4 (12.1%) participants said that the pedagogical materials are minimally related. These participants suggest a general concern on availability and adequacy of pedagogical materials needed in schools and goals set in curriculum. Probably teachers are still need time to familiarize themselves with new curricula. Also, teachers need to acquiring skills for using teaching and learning materials.

Insights from the interviews with the school head assisted to contextualize these findings. HoS-1 commented that "...I have a few books that are related to the curriculum goals" (Interview with HoS-1 on March 13, 2025). Another HoS-3 remarked, "I suggest that these books relate to the curriculum goals" (Interview with HoS-3 on March 13, 2025). Likewise, HoS-2 said: Textbooks correlate with curriculum goals and are of average quality". HoS-2 continues to say that "at least each subject has few copies. Sometimes we photocopy necessary pages for sharing in class" (Interview with HoS-2 on March 04, 2025).

In addition, the data from documents review showed that textbooks aligned with curriculum objectives. Through observations, the researchers noted that text books, syllabuses were available. A distinctive observation was that there were books for continuing students and new curricula text books for form one class who started the new syllabuses. This is an encouraging indication that some consistency exists between curriculum policy statements and instructional materials. Thus, teaching and learning materials are available with varying adequacy in the process of implementing policy statements.

4.2.3 Digital and Online Materials

The data from questionnaires presented in Table 2 reveal considerable obstacles in accessing digital pedagogical resources and online materials for students and teachers alike. Only 1 (3.0%) participant indicated that the resources are fully accessible, while a larger number of 16 (48.5%) participants perceive partial accessibility of digital and online resources. This indicates that there are some limitations in using digital and online teaching and learning materials. 14 (42.4%) participants believe that the materials are rarely accessible, pointing to frequent challenges in accessing these resources, and 2 (6.1%) participants were of the views that digital and online materials are not accessible at all.

During the interviews, HoS-2 said that "...there are some computers available that are used to search for teaching and learning resources online. Also, I am sure that teachers read some guide e-books online" (Interview with HoS-2 on March 04, 2025). Another HoS-1 said that "it is one thing to have computers in schools and it is another thing to find your-self with no computer teachers..." (Interview with HoS 1 on March 13, 2025). HoS-3 was of the view that "digital devices are accessible, but the issue which slows down it uses is funds for purchasing internet and availability of stable electricity to run the devices (Interview with HoS-3 on March 13, 2025). Similar to HoS-3, the head of school-2 argued that "you cannot force teachers to use their smart-phones or tablets for daily teaching (interview with HoS-2 on March 04, 2025).

In addition, through observation researchers observed some teachers in the studied secondary schools used tablets and their smart-phones to access the "Educentre Application" where e-books

are available. In general, digital and online materials are applied in teaching and learning in school yet needs arise for the adequacy of the resources due to different contextual needs.

4.2.4 Training for Teachers

The data from the questionnaire presented in Table 2 regarding teachers' views on trainings for utilization of teaching and learning materials indicate varied responses. 3 (9.1%) participants strongly agreed that teachers need to be trained to use teaching and learning resources. While 10 (30.3%) participants agreed, but the majority, 13 (39.4%) participants were neutral, reflecting uncertainty about the need for training teachers on pedagogical materials. This showed that they were in a dilemma, thinking about whether this training is enough or not. 6 (18.2%) participants disagreed, and 1 (3%) participant strongly disagreed, pointing to a segment of teachers who believe their training falls short.

The understandings gained from the interviews provide further context to these varied perceptions, as HoS-2 explained, “conducting trainings for staff development is something good, I use those teachers who attend seminars to train other teachers (Interview with HoS-2 on March 04, 2025). Another HoS-1 said, “I encourage teachers by preparing a day seminar on teaching and learning activities” (Interview with HoS-1 on March 13, 2025). While the HoS-3 said “there are newly introduced systems in school operations, seminars are very crucial, but they are so limited in terms of time allocated for training” (Interview with HoS-3 on March 13, 2025).

Through document review the researchers noted a seminar timetable on the notice board for teachers on competence-based teaching and learning. Teachers were trained to be able to teach for competence based. The researchers observed that on-job training was done by teachers assisting each other. The data imply that trainings are needed to inform teachers on various methods of teaching and learning. However, if schools' environment is limited to resources then it might hinder skills on how to use the resources like computers.

5. Discussion

Under this section the researchers have discussed the findings based the study objective. The study intended to examine the availability and adequacy of teaching and learning resources in Mpimbwe District Council secondary schools. Based on the data presentation this section discusses the following emerging issues: sufficiency pedagogical resources, and staff development training. The discussion is also supported with literature and theory used in the study.

5.1 Sufficiency of Pedagogical Resources

The findings revealed that at least in all three schools, heads of school and teachers were aware of the policy commitment or statement on the use of teaching and learning resources. The difference is on the availability and adequacy of the resources. This depends on the context of a school as supported by Takyi-Amoaka (2023), together with Pellegrini and Vivonet (2020). Also, schools seem to have received computers for teaching and learning from the government. This might have been reinforced by the Education and Training Policy 2014 (2023) Edition on formalization of Computer Science Studies as indicated in section 3.3.2 of the policy (MoEST, 2023a). The statement reads: The Government, in collaboration with stakeholders, will establish conducive- environments for the delivery of education and training using information and Communication Technology at all levels. In implementation process the Tanzania Institute of Education published a syllabus for Computer Science subject. This subject was made compulsory to all students (MoEST, 2023d). So with time schools seem to implement the policy by adjusting to modern requirements which include: the number of skilled manpower, computer laboratories, stable electricity, and adequate funds (Makala, 2023; Meney, 2024; Musungu, Ogula, & Munyua, 2021; Richard, 2025). The System theory supports that the connectedness of departments within schools for example, enables departments to operate more successfully. This is similar to the joint operations between the government as policy makers and the schools as implementers (Bertalanffy, 1968).

Regarding books and related material, these seem to be available in schools. The concern is if the available books and other materials are enough. In all schools, books are still needed in order to fulfill the Policy statements for new curricula as also supported by Takyi-Amoaka (2023), together with Pellegrini and Vivonet (2020), and MoEST (2023c). In addition, e-books and other electronic resources are used in schools although with limitations of skills to use them as Nomondo (2024) comments on the use of digital and printed materials. This could include: the use of tablets, Artificial Intelligence systems, learning applications, mobile phones, and other electronic devices. In addition, Munisi et al. (2026) together with Meney (2024) encourage on the improvisation of teaching and learning materials. Teachers and students are to be creative enough to prepare resources from the available and adequate local materials. This will enhance the use of teaching and learning materials which are ready- made and improvised materials. Therefore, mixed-oriented and praxis-oriented resources could be used in the implementation of policy statements on pedagogical materials.

5.2 Staff Development Trainings

The study evidenced the importance or the need for organising seminars and workshops for inducting in-service teachers with modern pedagogical resources. Most of the trainings which were explained by heads of school can be categorized as on-job-trainings (Sagimo, 2011). Some teachers who are knowledgeable and skilled in modern teaching technologies get opportunity to

train others in school. However, since secondary schools are currently operated with various systems for example the student registration system, attendance system, examination/results management system, communication system, school fees management system, and library management system. It is high time for staff development trainings to be designed and conducted especially on ICT related skills. For this reason, different seminars or workshops are to be schedule with specific objectives in order to assist teachers (Meney, 2024; Sagimo, 2011). However, head of schools and teachers themselves are to be ready for accepting new changes and wish to learn new ideas willingly not by force. Therefore, self-and positive mind set is very essential in coping up with application of the 21st century skills in our school operations. According to Dillon (2009), the praxis-oriented methods of teaching and learning which include: problem-based learning, project-based learning, and service-learning, critical dialogue, stories, text and study tours are to be encouraged to teachers' when trainings are conducted.

6. Conclusion and Recommendation

Studied secondary schools have put into reality that the policy statement on availability of teaching and learning resources is put into practice. Schools attempt to use computers and books in pedagogical activities. Limitations are encountered in the process of implementation. This is because of limited finding for operating some resources, and missing experts on the use of technological devices. Number of students also has to determine the adequacy of the resources. Since more government secondary schools are established in the country it is anticipated that even teaching and learning resources will be allocated to these schools according to the quantity or ratio required. Recommendation is given to heads of school and teachers to have positive mindset on the need to implement the policy commitment on resources for teaching and learning. However, read-made and improvised resources are to be encouraged in schools together with seminars and workshops for skills-orientations to the users of these resources.

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