Examining the use of teaching and learning aids in the classrooms: An empirical analysis

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Abstract

The importance of using Teaching and Learning Aids (TLAs) is strongly emphasised in the secondary school curriculum documents of Tanzania. Despite this, many in-service teachers appear reluctant to incorporate them into their teaching practices. This research aims to explore the factors influencing this reluctance to use TLAs. The study also proposes strategies to encourage their effective utilisation. Conducted using a phenomenographic design, the research is based on 30 in-depth interviews with teachers purposefully selected from eight public secondary schools in the Njombe Urban district. Eventually, the collected data were subjected to the thematic analysis approach to unearth the key findings emerging from the study. In terms of the reasons for teachers' reluctance to use TLAs, the thematic analysis identified three main themes- long experience syndrome and lack of professional commitment, lack of government support, and lack of professional support. As for the suggestive strategies to reverse the situation, four major themes were identified namely teachers' professional development, availability of resources, and effective follow–up strategy. The findings suggest that regular seminars should be organised by school leaders and the Ministry of Education, Science, and Technology to increase teachers' awareness of the importance of using TLAs in teaching. Furthermore, both internal and external quality assurers in charge of school supervision should ensure that all teachers use instructional resources as recommended by the Ministry.

Keywords: In-service Teachers, Teaching and Learning Aids, Years of Experience, Reluctance

Introduction

This study explores the factors contributing to the limited use of Teaching and Learning Aids by in-service teachers in public secondary schools in Tanzania. The inquiry was prompted by the author's first-hand observations of in-service teachers showing little interest in incorporating TLAs into their lessons, despite it being a mandated professional requirement. There is research evidence that teaching and learning are interesting and engaging when TLAs are used effectively and efficiently in a classroom setting (Ezenwa, 2018; Issacar & Hesbon, 2021). It is, therefore, necessary for all teachers in their teaching and learning to use TLAs to make their lessons engaging, stimulating, and challenging for students (Effiong & Igiri, 2015). TLAs, whether printed or non-printed, locally made or imported, encompass a wide range of materials such as kits, textbooks, magazines, newspapers, pictures, chemicals, and didactic technologies like projectors, sound equipment, audiovisual tools, and computer equipment (Kim & Go, 2016; Samuel, 2018).

The literature extensively documents the significant role of TLAs in enhancing meaningful teaching and learning (Ajoke, 2017; Juliana et al., 2019; Norwani, 2021; Samuel, 2018). When used appropriately, TLAs are believed to stimulate student interest, sustain attention for effective learning, encourage creative thinking, and enhance comprehension (Arop et al., 2019; Kul et al., 2018; Lopez-Pernas et al., 2019; Rusiman et al., 2017; Utami et al., 2019; Sofi, 2017; Tang & Intai, 2018; Zolghadr et al., 2015). TLAs help in concretizing abstract concepts and sparking learners' imaginations (Asiegbu, 2019; Dhakal, 2020; Omeje & Chineke, 2015). TLAs also save instructors' energy and lessen teacher-centeredness while promoting active involvement in the learning process (Ezenwa, 2018; Ngirabakunzi, 2017). Besides, TLAs improve teaching since they let students engage in active learning in the classroom (Issacar & Hesbon, 2021; Muraina, 2015; Tuimur & Chemwei, 2015). In addition, TLAs also enhance a teacher's efficacy in the classroom and in delivering lessons (Ajoke, 2017; Bukoye, 2019; Dawadi, 2020). TLAs engage students' senses, making teaching easier and learning stress-free (Anacaya, 2021; Artman, 2020; Ehirim et al., 2020; Expósito et al., 2020; Issacar & Hesbon, 2021).

Based on the preceding discussion, it is evident that TLAs enhance the prospects of effective teaching, meaningful student learning, and the development of requisite skills. Given their importance in the teaching and learning process, both pre-service and in-service instructors must enhance their instruction by carefully selecting TLAs that make their methods more realistic and relatable to students. Despite the significance of TLAs, the researcher's practical observations suggest that many in-service teachers are hesitant or unwilling to use them in their classes to enhance their teaching. This reluctance not only hampers student learning but also goes against the professional standards of the teaching profession. Therefore, it is important to investigate the reasons behind in-service instructors' reluctance to use TLAs in their classrooms.

The research conducted by other scholars in Tanzania on the use of TLAs in teaching and learning processes are well recognized and acknowledged. Such scholars include: Abdalla (2017) on TLAs and academic performance of science students in secondary schools, west district Zanzibar-Tanzania, Lyimo, Too, and Kipng'etich (2017) on the perceptions of teachers on the availability of TLAs and physical facilities in secondary schools of Arusha District, Tanzania, Kija and Msangya (2019) on the role of TLAs in learning science subjects, Tandika (2020) on instructional materials and the development of young children's 21st Century Skills: Perspectives from early educators in Ukerewe, Tanzania, Makwinya (2021) on teachers' pedagogical competence in dealing with teaching Aids in Tanzania, Mzinga and Onyango (2021) on the role of TLAs in learning geography among secondary schools in Busega District-Tanzania.

Drawing from the aforementioned studies, it is clear that researchers have paid less attention to the reasons behind in-service teachers' reluctance to use TLAs in the classroom. It is due to this gap in the research that the researcher considered the topic to

be a practical problem deserving of investigation. To address the research gap, answers were sought to the following questions:

i.   What factors contribute to the limited use of TLAs among in-service teachers in selected public secondary schools?

ii. How can the effective use of TLAs be enhanced among in-service teachers in selected public secondary schools?

Without empirical evidence of the factors contributing to teachers' ongoing resistance to TLAs, as well as potential solutions, there is a risk that many more teachers may continue to teach without incorporating TLAs. This could lead to students acquiring abstract concepts and memorising information, contradicting Tanzania's promotion of competence-based curricula since the country's educational reform in 2005. The study aims to contribute to the field of teacher education by identifying critical factors that limit in-service teachers' use of TLAs, thus enabling the implementation of appropriate interventions to address this issue.

Methodology

Research approach and design

This qualitative investigation took place in the Ludewa District of the Njombe region. Selecting Ludewa in Njombe was based on two key considerations. Firstly, Ludewa's geographical remoteness from the Njombe town council would likely hinder many educational researchers from easily accessing the region. Secondly, compared to other Njombe districts visited by the researcher during teaching practice supervision, Ludewa showed a more pronounced concern regarding the in-service teachers' use of instructional materials. To achieve the study's research objectives, a phenomenography design was employed. This design was chosen to better understand the experiences of in-service teachers with using teaching and learning resources, as well as the reasons for their reluctance to use them (Nixon & Odoyo, 2020). Based on these experiences, strategies for addressing this issue were also developed.

The study population consisted of in-service teachers teaching in public secondary schools in the Ludewa district. A purposive sampling technique was used to select 30 in-service teachers as interviewees for the study. The purposive selection was based on the premise that in-service teachers possessed the necessary insights into why they were hesitant to use instructional materials and how the use of these materials could be improved for more effective classroom instruction and enhanced student learning potential (Creswell, 2014). The sample size was determined based on saturation, a qualitative technique where the researcher ceases to gather new information when additional data no longer provides insight into the research topic (Charmaz, 2006). In this study, the sample size was considered sufficient for understanding the reasons behind

in-service teachers' reluctance to use instructional materials and for recommending improvements in their utilisation.

Data collection, analysis and ethical aspects

Data collection were performed using semi-structured interviews with participating teachers which lasted approximately 1 ½ hours and were directed by an interview guide. The semi-structured interviews were preferred due to the nature and sensitivity of the subject matter under investigation. The researcher thought that it would have been difficult for each teacher to share his/her experience on the reasons for the disregard of TLAS use in the group discussion. For this reason, SSFFIs felt relevant to address this conundrum. Moreover, the use of SSFFIs was found superbly suited because of its flexibility in allowing discovery or further elaboration of information that may not sound clear to the researcher (DeJonckheere & Vaughn, 2019a, 2019b).

The data collected for this study were analysed using inductive thematic analysis (Braun & Clarke, 2006). The authors highlighted six phases of thematic analysis, which include: Data familiarisation, generating initial codes, searching for themes (generating initial themes), reviewing themes, defining and naming themes, and report production. In this study, data familiarisation involved repeated and intensive reading of different qualitative datasets generated through interviews to get the general gist of the cleaned dataset ready for generating initial codes. Generating initial codes was essentially data-driven (inductive) in which the research objective was revisited in response to what message was portrayed by the collected dataset. Searching for themes involved sorting of codes into themes whereby the coded and collated data extracts were scrutinised for potential themes of broader significance.

Reviewing themes entailed a review of all relevant codes and data extracts under each theme to ensure that each theme had adequate supporting data and that the data included were coherent in supporting that theme. As it was found, some of the themes were too large or diverse. In that regard, it should be noted that data within each theme should have adequate commonality and coherence, and data between themes should be distinct enough to merit separation. This phase involved going back and forth between the dataset and the identified theme to organise the story into a coherent and internally consistent account. This enabled the creation of a definition and narrative description of each theme, including why it is important to the broader study question. In this study, report production entailed creating a concise and relevant narrative from the data to understand the factors influencing in-service teachers' limited use of TLA in the Njombe region.

Moreover, NVivo and Microsoft Word programs supported data organisation, coding, and theme identifications. In reporting, the emerging findings from the data were

presented as summaries and narratives and illustrated with examples and quotations thus capturing the respondents' perspectives and experiences. Approval to conduct this study was obtained from the Directorate of Research and Publications at the University of Dodoma. Permission to access the targeted schools was granted by the Management of the Njombe Town Council, in collaboration with the Regional Education Office in Njombe and the District Education Office in Ludewa. Informed consent was then obtained from all participants, with assurances of data confidentiality and the anonymity of both teachers and schools. Participants were assigned letters for teachers and numbers for schools to maintain anonymity. The researcher provided a brief overview of the study before conducting interviews with the teachers, which were conducted in Swahili and later translated into English by language specialists from the Department of Foreign Languages and Literature at the University of Dodoma.

Results

This study sought to examine factors for in-service teachers' disregard of the use of teaching and learning aids in Tanzania classrooms and suggestive strategies to reverse this conundrum. This section presents the demographic information of the participants involved in the study and the major themes that emerged out of the data analysis

Table 1: Demographic information of the participants

Variables	Sub-scale	Frequency	Percentage
Gender	Male	18	60%
	Female	12	40%
Educational level	Diploma	9	30%
	Bachelor	14	46.6%
	Masters	7	23.3%
Age	21-30	4	13.3%
	31-40	19	63.3%
	41-50	4	13.3%
	51-60	3	10%
Years of experiences	1-5	4	13.3%
	6-10	15	50%
	11-15	9	30%
	16-20	1	3.3%
	21-25	1	3.3%

Source: Field work (2022)

Factors influencing in-service teachers' limited use of teaching and learning aids in the classroom

The primary intent of the current study was to examine factors for in-service teachers' limited use of teaching and learning aids in Tanzania classrooms. Thus, Table 2 gives a summary of the themes and the corresponding codes that resulted from the data analysis. Details on each theme and supporting quotations are supplied afterwards for additional verification.

Table 2: Themes and codes derived from the data analysis

Themes	Codes
Long experience syndrome and lack of professional commitment	• Perceptions of long experience
	• Negative attitude that teaching aids are time-consuming in preparation and use
	• Need for finishing up a topic
Lack of government support	• Unavailability of teaching and learning aids
	• Teachers' workload beyond the required threshold
Lack of professional support to encourage teacher buy-in	• Absence of regular school inspections
	• Teachers' incompetence in preparing teaching and learning Aids
	• Inadequate expertise in the use of the latest ICT resources

Source: Field work (2022)

Long experience syndrome and lack of professional commitment
Based on the interview results, the participants were of the view that negligence, carelessness and lack of commitment in the profession was making teachers feel no need of using TLAs in the classroom. With this perspective, in-service teachers were of the perception that their long experience in the profession mattered a lot in teaching. Further, the analysis disclosed that having read many books and taught for many years compared to the beginner teachers, in-service teachers felt that they had sufficient knowledge to make students understand the topic without using TLAs. Here is the response by the respondent that captures the gist of this theme:

> I now have sufficient job experience. What you refer to as TLAs, in my opinion, are primarily intended for new instructors who have not yet formally entered the teaching profession. They are still figuring out how to help their pupils develop the desired knowledge, abilities, and attitude. I've been doing this for more than 10 years; do you really believe I can't assist my students in learning? No, let TLAs be for the beginner teachers as new learners in this field (Interview with teacher A, school 1, September, 2022)

Another response demonstrating the participants' feelings of long experience is evident in this quote:

> You know, if you are a new teacher and perhaps in the field work, failures to use what you might have branded as TLAs, might cost you points with the teaching practice assessor. We know this as we all have navigated from that stage. At this stage now, we are employed, no need to use them. I think we know how to teach. (Interview with teacher A, school 1, September, 2022)

Based on the previously provided response, it is clear that a reluctance among in-service teachers to use Teaching and Learning Aids in the classroom was influenced by the number of years of work experience. Moreover, they still held the view that TLAs were compulsory for practising teachers.

Again, the analysis of the data revealed that participants had a negative attitude that teaching aids were time consuming in terms of their preparations and use. They spoke that TLAs take long time to prepare as well as us21ing them in the classroom. They argued that given this scenario, in the long run, teachers might miss teaching other classes as scheduled. Besides, during teaching, the students have to be close to the TLAs, observe them, perhaps touch or sometimes smell them and then discuss what they have noted about them in their groups. The participants felt that the time to do all these was very limited hence no need of using TLAs. The following statements from the participants attest to this attitude:

> We are all aware that each subject is given a 40- or 80-minute block of time in schools and you still have to attend other classes. Imagine, if you begin preparing TLAs and allow students enough time to interact with them, you won't finish your lessons and could even be not able to attend another session. (Interview with teacher B, school 1, September, 2022)

This finding was corroborated by another participant who remarked:

> Personally, I find it very difficult to teach four classes and to reserve time for the preparation and use of TLAs. Even if they are important for spicing up my lesson, their use seems unrealistic. I think all of my time is going to be wasted just getting ready for class. (Interview with teacher B, school 1, September 2022)

Based on these quotations, it can be deduced that participants had an attitude that TLAs were one of the time wasters in the classroom hence no need of embracing them.

In addition, the findings revealed that another factor making teachers abandon using TLAs was the need to finish up a topic. It was obvious from the findings that there was a culture of some teachers rushing to finish up a topic to the detriment of students' learning. In their view, using TLAs would delay such a lesson or topic completion. Subscribing to this line of thinking, one of the respondents said:

> Many teachers teach to finish up topics and satisfy the school management team. So, my ideas are that if I start demonstrating TLAs in the classroom, I cannot achieve such a mission hence creating a sense of irresponsibility to the school leaders. As a result, I just go into the classroom without TLAs for that matter. (Interview with teacher C, school 2, September 2022)

These comments are reflective of the majority of the participants' feelings that the need to finish up a topic early is what drives teachers not to use TLAs.

Lack of government support
It was also revealed from the findings that in-service teachers were not using TLAs due to the argument that there was no government support for them to do so. Specifically, they cited the unavailability of teaching and learning resources in schools as one of the indications showing a lack of government support. Regarding this argument, one of the participants' views in this context are quoted underneath:

> To me, the unavailability of teaching and learning resources in schools demoralises teachers thus making them not use TLAs in the classrooms. For example, I have been a geography teacher for many years but the schools do not have weather stations and survey equipment for the geography subject. Tell me where can I get these materials from for me to guide my students to internalise the lesson? (Interview with teacher C, school 2, September, 2022)

Based on the participants' comments, it is reasonable to conclude that the unavailability of resources creates reluctance for teachers' use of TLAs.

Furthermore, insights gained from in-depth interviews with the participants indicated that teachers tended to neglect the use of Teaching and Learning Aids due to an increased workload beyond the minimum requirement of 28 periods per week as specified in the curriculum document. They underlined that, in-service teachers had a big number of students with more periods than usual, hence deciding to use the lecture methods without TLAs. In their view, this was making them find it difficult to use TLAs. Based on this issue, the following comment was made by teacher D:

> Well, the answer to your question is simple. If I were given more periods to teach than normal. I cannot think of TLAs. I normally prepare my notes

then I go and teach. When my period is over, I go to another classroom
and this is the routine. (Interview with teacher D, school 2, September,
2022)

Based on these responses, it is obvious that teachers' workload was being attributed to
the big number of students and multiple periods, thus making the use of TLAs
unrealistic.

Lack of professional support to encourage teacher buy-in
The participants were critical of the professional support they were supposed to get from
the school management. Particularly, they emphasised how the lack of consistent school
inspections had led them to question the utility of employing TLAs. They underlined that
the school inspectors or quality assurers were not visiting all schools regularly to assess
and support teachers, eventually, this was contributing to teacher reluctance on the use
of TLAs. In this context, teacher E was quoted as saying:

Ahaa, okay, the fact that quality assurers are not visiting schools regularly
makes in-service teachers do business as usual. If there were follow-up
and support by quality assurers, teachers would be very serious in the use
of TLAs. (Interview with teacher E, school 2, September, 2022).

The same sentiments were corroborated by another participant as follows:
We human beings do things if we see somebody behind us watching what
we are doing and supporting us where necessary. So, because we don't
get any support from quality assurers following their irregular visits to
schools, then we find no need to use them (Interview with teacher F,
school 2, September 2022).

These narratives from the participants' illuminate that the absence of regular teachers'
supervision by both internal and external quality assurers makes teachers unwilling to
use TLAs.

Besides, the absence of regular school inspections or supervision, the participants also
spoke about their incompetence in preparing TLAs from locally available resources as
one of the factors fostering their reluctance in using TLAs. They said that they did not
have sufficient skills in preparing TLAs from their local environment in a way that would
supplement their lessons. These views were echoed by the respondents who maintained
that:

I do not know much about using the world around me to make things that
can actually assist pupils in understanding what I am trying to teach them.
I believe the school administration does not support me in doing so. Thus,
I will always view the usage of TLAs as an inconvenience rather than a

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requirement if this is not made clear to me. (Interview with teacher G, school 3, September 2022).

On the same aspect, another participant added:

On my side, I know that the local environment or objects can be used to create teaching and learning materials. However, the problem is that because we are old in the profession, people think we know everything. For some of these things, we need extra support. Things are changing nowadays so we need to be updated as well. (Interview with teacher H, school 4, September 2022)

The above quotation suggests the following: first, participants were of the feelings that the local environment could be used for the production of TLAs. Second, teachers still felt ignorant of using the available resources to prepare TLAs for their lessons.

Furthermore, the participants felt that they had inadequate expertise in the use of the latest ICT resources, something which was posing a challenge for them when it came to integrating technology as TLAs in their lessons. Although teachers perceived ICT resources such as computers as necessary, they expressed that they had received only basic computer literacy training skills. The following quotes from the participant capitalises on the above point:

Okay, I am aware that ICT can make big changes in teaching. Nevertheless, the challenge still remains on how many teachers, particularly of my age in the profession, feel confident in using ICT in their teaching? Maybe quite a few if any, and in this case, it cannot be integrated into the curriculum implementation as expected. (Interview with the teacher I, school 5, September 2022)

The same feelings were clearly visible from the following narratives by another participant:

Of course, ICT by itself is TLAs, but I am still ignorant of using it. If I had known how to use it properly in my class, I would have moved my students from rote learning which to me I think is killing academically many students nowadays. (Interview with teacher J, school 6, September, 2022)

Based on the preceding extract, it can be noticed that teachers' incompetence in the use of ICT as TLAs   was making them feel unwilling to use them in their lessons.

Suggestive strategies to sustain in-service teachers' use of teaching and learning aids

This study enquired from the respondents of the suggestive strategies that would be used to sustain in-service teachers' use of teaching and learning aids. In this vein, Table 3 gives an outline of the themes with their associated codes which came into being through data analysis. Detailed descriptions and supporting quotes for each theme are provided afterwards.

Table 3: Themes and codes derived from the data analysis

Themes	Codes
Teachers' professional development	• Awakening seminars for experienced teachers • Making teachers go for further studies • Educating teachers on the use of the latest technologies
Availability of resources	• Reserving special funds and grants for the latest technology • Supporting teachers in improvising teaching and learning aids.
Effective follow–up strategy	• Close supervision of teachers
Improving teachers work condition	• Incentivizing teachers • Reducing teachers' workload

Source: Field work (2022)

Teachers' professional development
In the face of several challenges they were facing in integrating TLAs in their lessons, in-service teachers came up with a wide range of suggestive strategies, one of which was teachers' professional development. Specifically, they advised that there should be awakening seminars for experienced teachers on creative teaching and the centrality of using teaching aids. According to them, teachers needed to be reminded in the capacity building seminars, of the fact that becoming a contemporary teacher in the twenty-first century, among other things, is to be creative in making TLAs even from the available resources. In their views, teachers had to be reminded regularly of the centrality of using the available TLAs in schools to concretize their lessons. Regarding this, one of the participants' views in this context are quoted underneath:

> My suggestion is that all teachers, regardless of how much time they have served as teachers, need to be supported through various seminars on how TLAs can make them creative teachers. They should be told how TLAs can make a revolution in their teaching hence. (Interview with teacher F, school 4, September, 2022)

The same feeling   was echoed by another participant in his remarks:

> Yeah, regarding my advice on that, I would say we teachers have to be sent in various seminars to sharpen our comprehension on the use of TLAs. This would help us appreciate their values hence integrating them fully in our teaching. (Interview with teacher H, school 9, September, 2022)

These comments emphasise that professional development programmes for teachers in seminar forms are needed for teachers to get a broader awareness on the importance of using TLAs.

Another related suggestion that came out of data analysis is that teachers should be given the opportunity to go for further studies instead of staying in their   work place for many years. They stressed that if teachers would go for higher studies that could be an avenue for them to expand their awareness on the use of TLAs. On this point, one of the participants summed it up best by saying:

> If teachers are not given a chance to go for higher studies elsewhere, they will be reluctant to use TLAs. I think it is important for them to be given these chances. In my case, I have struggled more than two times to get a master's degree, but I have not been allowed by my boss. In this context, I may not be informed enough about TLAs. (Interview with teacher I, school 11, September, 2022)

The above narrative provides evidence of the feelings that if teachers are given opportunities for further studies, it can encourage them in using TLAs. (Adhiambo & Mwalw'a, 2020).

Besides, it was also suggested by the participants that teachers should be trained on the use of the latest technologies (ICT). They exposed that many teachers had only basic literacy on ICT thus they remained ignorant of the use of the same to supplement their teaching. In their view, the professional development programme should be put in place to support them on the use of ICT as basic TLAs. The following quote from one of the participants puts emphasis on the above point:

> When I was at college, I remember I was exposed slightly to the basics of ICT. So, I didn't get much knowledge from that exposure. I strongly advise that teachers should be given training on the use of ICT and how it can be primary TLAs for teachers to embrace in their teaching. (Interview with teacher J, school 1, September, 2022).

The findings above make it clear that participants felt that training teachers on the use of ICT was the primary help for them to start using ICT as TLAs in the class.

Availability of resources

The participants advised that there should be sufficient resources in schools for teachers to use TLAs. They mentioned that the government should reserve special funds and grants for buying the latest technology–ICT and its tools so that teachers can use them as TLAs. Similarly, the participants commented that the government should ensure that at least the key materials such as chemicals, apparatus and the like are available in schools to encourage learning. This is clearly visible from the following narratives by one of the participants:

> I think the capitation grants given by the government for schools need to consider the purchase of necessary resources in schools. The issues of resource provision, both materials and funds need to be taken seriously if we are to get prepared for the twenty first century teaching skills. (Interview with teacher C, school 1, September, 2022)

The above narratives reveal that participants believed in the availability of funds and other needed materials in schools to encourage the use of TLAs in the classrooms.

In addition, the participants suggested that teachers had to be supported with skills on the idea of improvisation of TLAs. Following the big number of schools in the country and scarcity of resources, the participants thought that making improvisation as a key knowledge area to be taught for all teachers was important. The participants' comments on this matter are reflected in the following narratives:

> Well, my opinion is that teachers have to be supported in terms of how they can make their surrounding environment as sites for primary teaching and learning. Students always want to connect what they are taught and what they are already familiar with. In this regard, making TLAs from the locally available materials cannot be overemphasised. (Interview with teacher D, school 4, September, 2022)

Another teacher who participated in the interview also said:

> Let's teachers be made aware of how we can use locally available resources such as flowers, soil, rocks, etc. Let these be TLAs instead of waiting for the government to bring everything including TLAs. If we go on waiting, In the future, this will prove to be impossible because schools are many and they keep on increasing. (Interview with teacher M, school 14, September, 2022

The findings above provide evidence of the participants' thoughts that the use of improvisation skills by teachers may address the shortage of availability of TLAs hence encouraging teachers to use the same in the classrooms.

Effective follow–up strategy

Another strategy given by the participants to address teachers' reluctance on the use of TLAs was having an effective follow-up strategy. On this note, close supervision of teachers by both internal and external quality assurers was suggested. According to them, internal quality assurers and external quality assurers would have to regularly watch out teachers' activities and remind them of the necessity of using TLAs in their lessons. In connection to this, the interviewed teacher was of the opinion that:

> I think quality assurers both internal and external have to regularly visit the schools. In their visit, I would suggest that teachers' use of teaching and learning aids should be one of the areas for them to look at. This will always make teachers alert thus they will never make their lessons dry regardless of their years of teaching experience. (Interview with teacher N, school 18, September, 2022).

The above narratives reveal the participants' belief that close follow-up of teachers will keep them alert in the use of TLAs.

Improving teachers' work condition

Moreover, the participants thought that improving teachers' work conditions could be a good strategy in helping teachers use the TLAs in the classroom. In particular, the participants mentioned that there was a need to incentivise teachers for that matter. They elaborated that if teachers' efforts would be rewarded in terms of money or simple recognition of their efforts, then they would increase their morale of executing their professional obligations including the use of TLAs.

Additionally, during the discussions, the participants also advised on reducing teachers' workload. They emphasised that teachers' workload should be made reasonable. According to them, teachers should teach a manageable number of classes and class size should be reasonable too. This can motivate them to have sufficient time for preparing and using TLAs. This comment is visible in the following participant's remarks:

> I suggest that the workload for teachers should be addressed seriously. How come you expect teachers teaching more than 28 periods per week to have time to design teaching aids? They need time for assessment also. Having teachers teach so many periods and then expect them to prepare and use TLAs in the classroom is a joke to me. (Interview with teacher P, school 21, September, 2022)

Agreeing with the same of line of thinking, another participant added:

> In my view, teachers with big workloads should be taken seriously if we are to use TLAs and catch up with the speed of the world in producing

creative and competitive global citizens. Teachers' duties should be reduced to make them get time to design interactive teaching aids. (Interview with teacher N, school 21, September, 2022)

Based on the above quotes, it was noticeable that from participants' perspectives, addressing teachers' workload by reducing the number of classes and maintaining a manageable class size could hearten teachers to using TLAs.

Discussion

The intent of this study was to understand the factors limiting in-service teachers' use of TLAs and the suggestive strategies to reverse the situation. This study noted different factors influencing in-service teachers' limited use of teaching and learning aids in the classroom. The study noted that long experience syndrome and lack of professional commitment contribute to limited use of TLAs in the classroom. There is a substantial body of empirical evidence supporting this claim. Nsiza and Nyakwara (2017) observed that repetitive use of teaching due to teachers' long time experience makes teachers reluctant on the use of TLAs. Another experience shows that negative attitude towards improvisation, and its effects on the study of science subjects at the junior high schools in Aowin Municipality-Ghana cripple the use of TLAs in the classroom (Asare &O sei-Himah, 2018). Their study also revealed that teachers were thinking that the preparation of improvised materials is tedious and time-consuming. This finding shows that the problem of in-service teachers' limited use of the TLAs is not confined to Tanzanian context only, rather it appears a common phenomenon in schools elsewhere. The need to finish up a topic early is also noted as a driver explaining teachers' limited   use of TLAs. It was evident that teachers also had the feelings that sharing the resources such as ICT tools with other teachers was a waste of time as it would also   cripple their efforts when it came to finishing up lessons timely (Muslem, Yusuf & Juliana, 2018).

There is evidence to show that an inadequate number of textbooks, reference books, maps and globes in schools under investigation due to the increase of students in community schools was discouraging teachers from using TLAs (Lyimo, Too &Kipng'etich, 2017). The implication here is that there is a need for the Ministry of Education Science and Technology to ensure that there is sufficient distribution of teaching and learning resources in schools. Based on the findings, it was clear that teachers' workload was limiting them from using the TLAs for effective teaching and learning. Nyawira (2015) in the study of challenges facing teachers in utilising instructional resources when teaching mathematics in public secondary schools in Nairobi County, Kenya, also confirmed that among the challenges facing teachers in utilising TLAs were heavy workload and large class sizes. Inadequate supervision of teaching and learning was found to limit the use of TLAs but whose impact was felt in students' learning experiences. The participants' comments on this point were consistent with Pam,

Adhiambo and Mwalw'a (2020) whose study revealed that among many factors influencing teachers' effective use of TLAs, included lack of effective teachers' supervision to ensure that teachers were using visual aids as expected. It was found that some teachers were hardly using TLAs in their teaching owing to their incompetence in the use of modern technology. The findings of this study agree with those of Muslem, Yusuf and Juliana (2018) on the study about perceptions and barriers to ICT use among English teachers in Indonesia. Their study also posited that a lack of knowledge and experience on ICT training were obstacles for teachers in using ICT such as TLAs (Dhakal's, 2017).

The study also exposed suggestive strategies to sustain in-service teachers' use of teaching and learning aids. Categorically, it came to the conclusion that there was a need of engaging teachers in different professional development platforms to augment their understanding on the importance of using TLAs for effective teaching and learning. These findings coincide with Pam, Adhiambo and Mwalw'a's (2020) observation that head teachers should also help to organise in-house seminars for teachers on how to use visual aids. This corroborates other studies which concluded that sponsoring teachers for further studies could be one of the promising means for in-service teachers to get reminded of the necessity of using TLAs in the classrooms. Other studies (Ayerteye, Kpeyibor & Boye-Laryea, 2019; Muslem, Yusuf &Juliana, 2018) are also of the view that provision of joint ICT workshops and capacitating teachers to improvise TLAs have the potential to enable teachers to develop readiness and willingness in using TLAs in their teaching and learning experiences. In ensuring that teachers are ready to employ TLAs in teaching and learning, effective follow-up came to the surface. This observation corroborates other studies whose findings also suggested that educational leaders including all headmasters should supervise teachers to ensure that they make decisions in using TLMs in their lesson delivery (Ayerteye, Kpeyibor & Boye-Laryea, 2019). Thus, improving teachers' work conditions has a significant influence on their use of TLAs in the classroom. This is similar to what Pam, Adhiambo and Mwalw'a's (2020) study suggested that the reduction of pupils to manageable sizes per class can go a long way in developing teachers' morale on the use of TLAs in their lesson delivery.

Conclusion and Recommendations

Based on the study findings, it is concluded that in-service teachers' perceptions of having more work experience than practising and new teachers explain their reluctance to use TLAs. Other factors that were found to contribute to in-service teachers' reluctance to use TLAs in the classroom included lack of government support and professional assistance. In terms of strategies, the study suggests that teachers' professional development, resource availability, effective follow-up strategies, and improving teachers' working conditions are the main strategies for addressing teachers' reluctance to use TLAs in the classrooms.

In light of the above conclusion, this study recommends that school leaders and the Ministry of Education, Science, and Technology should organise regular seminars for teachers to remind them of the importance of continuing to use TLAs regardless of their years of teaching experience. This emphasis should also be incorporated into teachers' colleges nationwide, as instilling this positive notion during teachers' training can have a lasting impact on their approach to teaching upon employment. Additionally, school leaders, managers, and the Ministry of Education, Science, and Technology should ensure that there are enough instructional materials available in schools. They should also create an enabling environment for teachers to participate in conferences, workshops, and seminars to enhance their skills in instructional materials development and improvisation. The government should allocate sufficient funds to ensure the availability of instructional materials in schools across the country, which will enhance effective teaching and student learning. Quality assurance officers responsible for supervising teaching and learning at the school level should take their roles seriously and ensure that instructional resources are used as recommended to make teaching and learning experiences more meaningful. To gain a more comprehensive understanding of the factors limiting teachers' use of TLAs, future researchers are encouraged to conduct studies that involve the perspectives of external school quality assurance officers as well as internal quality assurance officers, including school heads

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