

Mobile Pedagogical Technologies and Teachers' Professional Ethics in Tanzania: An Inquiry into the Use and Abuse of Mobile Phones by Teachers in Secondary Schools

Hamisi Mfaume

Dar Es Salaam University College of Education

Abstract: Emerging mobile technologies have significant educational benefits and raise several ethical concerns. This study examined the use and abuse of mobile phones by teachers in secondary schools in Tanzania. It employed a qualitative phenomenological research design that involved three secondary schools and 44 participants, including teachers, school heads, Teachers' Service Commission officers, Education officers, and students in Kinondoni District in the Dar es Salaam region. Data were sought through semi-structured interviews, Focus Group Discussions, and documentary reviews and were subjected to thematic data analysis procedures. The findings indicated that teachers do not fully utilise their mobile phones for academic purposes in schools. Also, abuse of mobile phones by teachers is commonplace in schools. The study recommends the need for a framework to guide teachers on the ethical use of the devices and for the curricula at all educational levels to incorporate content related to ICT use ethics.

Keywords: mobile technologies, mobile phone, use and abuse.

Introduction

In the 21st century, the world has experienced an ever-growing array of mobile technologies (Omiunu, 2017). Of course, the mobile phone is the most widely used, of many forms of technologies, with subscriptions reaching 8.6 billion globally (International Telecommunication Union [ITU] 2021). Its broad accessibility and converging functions have made it a powerful catalyst for transforming different sectors, including education (Nazir, 2020). The device can empower the education sector by enhancing communication and interaction, access to educational materials, and collaborative learning (Gibbons et al., 2018). Also, it provides a portal for training and other educational-related services at convenient times and ubiquitously (UNESCO, 2017).

With these rich educational potentials, a mobile phone has been considered an appropriate tool for educational development in most countries in Sub-Saharan Africa. Several mobile learning projects aimed at harnessing the device's potential have been apparent across countries (UNESCO, 2017). They include Nokia's Mobile Mathematics and Master Math in South Africa, M-Pesa-project that supported in-service teacher training in Kenya, a mobile literacy game in Zambia, an e-reader, and a Mobile Math learning platform in Ghana, among others (Isaacs et al., 2019; Jere-Folotiya, 2014; Roberts et al., 2015).



Mobile phone use has been proliferating in Tanzania, with subscribers reaching 51.22 million (ITU, 2021). The increasing access to the device has prompted the government to consider its integration in education (The Ministry of Education and Vocational Training [MoEVT], 2007; Gibbons et al., 2018). The potentiality of a mobile phone and the need for its integration into education is reflected in the ICT policy for basic education launched in 2007 (MoEVT, 2007). To achieve the goal, the government and its partners have conducted several pilot projects to explore its educational relevance and equip teachers with the knowledge to utilise it in teaching (Mtebe et al., 2015; Gibbons et al., 2018; Mtebe et al., 2020). Moreover, initiatives to improve ICTs' infrastructure to support its usage in schools have been undertaken (Kafyulilo, 2014). The Ministry of Education, Science and Technology's (MoEST) report indicates that until 2017, approximately 20% of schools and 34 teacher training colleges were connected to the internet that supports the educational use of the device (MoEST, 2017).

Notwithstanding these well-intentioned initiatives, successful integration of the device requires teachers who will use it in an ethical manner (MoEVT, 2007; Gibbons et al., 2018). Teachers' ethical conduct is necessary for realising any educational goal (VanNuland & Kandelwal, 2006). According to the code of conduct for teachers in Tanzania, teachers have an ethical and moral obligation to ensure the well-being of the children under their care, the community, the state, the employer, and the teaching profession (The United Republic of Tanzania [URT], 2015). In this regard, they are obliged to maintain the highest standard of ethical conduct in their routine use of ICTs such as mobile phones (Mfaume, 2020). Failure to observe core ethical values will quickly lead to failure to attain the goal that the device was intended to support (Swarts & Wachira, 2010). Despite the government's commitment to integrating the mobile phone in education, little is known about the current state of teachers' adoption and use of mobile phones in schools. Besides, there have been tremendous reports about teachers' misuse of the device in schools (The National Examinations of Tanzania [NECTA], 2009; Lubasi, 2017; Mfaume & Bilinga, 2017; Ramadhan, 2018; Mfaume, 2020). Ignoring these reports will portend doom for the government's dedication to developing the educational use of ICTs, such as mobile phones, and heralds the possibility of increasing ethical abuse in the teaching profession. Therefore, gaining a research-based understanding of the concern is crucial to curbing it. This study attempted to unpack the following key questions.

Research Questions

- 1. How do teachers describe their educational utilisation of mobile phones in schools?
- 2. What, if any, are the prevalent forms of mobile phone abuse by teachers in schools?

Literature Review

Modern technology like a mobile phone is inevitable in the education sector in today's world. This section presents literature related to the educational use and abuse of mobile phones by teachers across countries.

Teachers' Adoption and Use of Mobile Phones for Educational Purposes

Multifarious research studies on the adoption and use of mobile phones by teachers have been conducted worldwide. Suki (2009) examined educators' readiness to use mobile phones for teaching. The study revealed that most educators had limited awareness of the educational worth of the device. As such, they disliked using it for teaching. Another study by Nordin et al. (2010) also found that the

student-teachers in Malaysia were not interested to see the use of the device as a part of schools' curricula. Thomas et al. (2013) found that though most pre-service and in-service teachers supported mobile phones for teaching and learning, their non-educational usage surpassed educational ones. Ismail et al. (2013) found that teachers' adoption of the mobile phone as a pedagogical tool in Malaysian schools is still low. Most teachers did not perceive a mobile phone as a potential tool for education. They were sceptical about using it for teaching and learning. Msuya (2015) studied mobile phone use in teaching and learning in secondary schools in the Dodoma region in Tanzania. The findings revealed that teachers were well acquainted with the educational potential of mobile phones. However, only 13% used it for teaching and learning. Also, Mwapele et al. (2018) explored secondary school teachers' adoption and use of mobile devices outside the classroom for learning in South Africa and Tanzania. The findings indicated that teachers in both countries had adopted mobile devices. Most teachers spend hours on mobile devices, including social media, to fulfil their socialisation and recreational needs. Some had adopted and used mobile devices for academic purposes.

Abusive Use of Mobile Phones by Teachers

With the increasing uptake of mobile phone use by teachers, there has been a tremendous increase in reports of mobile phone abuse across countries. Irira (2014) came across some tutors at the Tanzania Institute of Adult Education chatting on their devices and reading newspapers while invigilating examinations. A similar incident featured in the 2021/2022 university examination monitoring report released by the Dar es Salaam University College of Education (DUCE) quality assurance office (DUCE, 2022). The report indicated that some examination invigilators were chatting in examination rooms. Porter et al. (2016) reported that in Malawi, Ghana and South Africa, most teachers made and received phone calls or exchanged messages in classrooms, seduced and bullied students through phones, and had prolonged chatting during working hours. Karanja (2016) reported that in 2015, in Kenya, some teachers and their heads of schools were charged with spearheading cheating during examinations through their mobile phones. In 2018, the National Examination Council of Tanzania (NECTA) nullified the primary school leaving examination results due to cheating committed by the education officers in collaboration with heads of schools and teachers through WhatsApp groups (Ramadhan, 2018). Pedraya (2016) reported that in Michigan City, in June 2016, a high school teacher resigned after being found guilty of sexting students. In October 2017, a secondary school teacher in Durban appeared before the court, accused of sexting a 13-year-old female student. In 2019 in KwaZulu-Natal, a male teacher was suspended for exchanging graphic sexual materials with pupils. Accordingly, during the meeting with teachers in the Dodoma region in Tanzania, the then Minister of education declared that many teachers failed to accomplish their professional duties due to prolonged chatting on WhatsApp (Lubasi, 2017). Park (2016) reported that in New Jersey, the authority held a substitute teacher for charges of possessing and distributing hundreds of videos depicting child sexual exploitation. Recurring reports of these unprofessional incidents require research-based understanding to promote the proper use and curb misuse of the device in schools.

Methods

The study adopted a qualitative phenomenological research design. The design focuses on individuals' views and experiences of a particular phenomenon (Mertens, 2010; Creswell, 2014). It allowed the researcher to capture in-depth data about the subject from participants with varied views

and experiences (King & Horrocks, 2010; Hossain, 2011). Thus, it provided a deep understanding of the use and abuse of mobile phones by teachers in schools.

The Population of the Study

The total population of the study comprised 26,286 participants and 23 public secondary schools in the Kinondoni District in the Dar es Salaam region. Specifically, it involved six categories of participants, including the District Secondary Schools Education Officer, eight District School Quality Assurance Officers, and five Teachers Service Commission Officers, 23 heads of public secondary schools, 944 secondary school teachers and 25,305 students.

Sample and Sampling Techniques

The study involved three public secondary schools and 44 participants in Kinondoni District in the Dar es Salaam region. Specifically, the sample comprised one District Secondary Education Officer, one District School Quality Assurance Officer, three Teachers' Service Commission (TSC) officers, three heads of schools, 18 teachers, and 18 students. Data saturation determined the sample size (Yin, 2011; Patton, 2015). The schools' and participants' actual names were anonymous for ethical issues consideration.

The researcher used a purposeful sampling technique in selecting sample schools and participants. The technique allowed the researcher to use his judgment to obtain the sample (Magwa & Magwa, 2015). Therefore, the researcher selected the Kinondoni district as a study area since it was a piloted area for ICT integration in schools in the region. Equally, the researcher selected schools equipped with ICT facilities like internet and computer laboratories that support the educational use of mobile phones. The criteria assured the researcher of a high likelihood of finding relevant data to answer the research questions. The selection of the participants was twofold; the positions they held and the years of stay in a given school. For example, they were the head of the schools, class teachers, discipline, academic masters, and an education officer with at least five years of working experience. Similarly, students involved were prefects and class monitors in their third and fourth years of study. These participants were overall in charge of education management and disciplinary matters.

Data Collection and Analysis

The study involved three data collection methods: semi-structured interviews, Focus Group Discussions (FGDs), and document reviews (Mogalakwe, 2006; Willig, 2013). The researcher employed semi-structured interviews to collect data from all categories of participants except students who participated in FGDs. The researcher also reviewed teachers' disciplinary records in schools and TSC offices, the Tanzania Cyber Crimes Act of 2015, the Tanzania teachers' professional code of conduct, and the public service code of conduct (URT, 1996; 2015; TSC, 2016). The open-ended nature of semi-structured interviews motivated the interviewees to fully express their opinions and experiences, enabling the researcher to explore in-depth insider perspectives (Turner, 2010). Similarly, FGDs offered a chance for students to probe each other in the course of discussions and provide detailed information on the subject (Bryman, 2012); equally, documentary review enabled the researcher to complement and authenticate the data generated from interviews and FGDs (Mogalakwe, 2006).

The collected data were subjected to thematic analysis. The analysis involved six concurrent steps: data familiarisation, whereby the researchers read the transcripts repeatedly to know what emerged directly from the transcripts. Then the researcher generated initial codes, searched for themes, reviewed themes, defined and named themes, and finally, the researcher conceptualised and interpreted the data and provided adequate evidence for each theme before the conclusions were drawn (Braun & Clarke, 2006; Denscombe, 2007). Braun and Clarke (2006) suggested that researchers must get involved in data collection, transcription, and analysis for superior and insightful data analysis. In that regard, the researcher himself collected, transcribed, and analysed all the data.

Findings

This section presents and analyses the findings of the study based on the research questions.

Teachers' Educational Utilisation of a Mobile Phone

The first research question sought the teachers' views and experiences on whether or not they fully utilised their mobile phones for academic purposes in schools. Responding to the question, all the interviewed teachers and school heads reported that even though most teachers possessed smartphones, they rarely used them for educational purposes. A female teacher at school "B" asserted:

Almost all of us own smartphones; however, we rarely use them for educational purposes...in most cases, we use them for communication and chatting...

In corroboration, the head of school "A" added:

Teachers hardly use their phones for educational purposes. For instance, Tigo offers our school a free internet bundle monthly for educational use, but the bundle always expires without being fully utilized...

These initial responses prompted the researcher to inquire about the favourite use of the devices by most teachers in schools. The responses indicated that most teachers often use the devices for communication with relatives and friends. They also use them to chat about social and political affairs and make a follow-up of lifestyles and events of celebrities, in particular, musicians, artists, and politicians. Consequently, they reported using the devices for leisure like playing games, listening to music, and watching movies. A male teacher at school "A" elaborated:

Usually, we use our phones to communicate with our families, friends, and business customers. We also chat about politics, make jokes, play games, listen to music, and watch videos...

A male teacher at school "B" added:

Nowadays, teachers behave like journalists. Instead of using the device to search for teaching and learning materials, they are often busy taking photos and videos and recording every event at school for posting on social media...

The finding indicates that teachers underutilise their mobile phones for academic purposes in schools. It implies that the government's commitment and enthusiasm to integrate the use of this versatile device in education has merely remained on paper as policy statements.

The Prevalent Forms of Mobile Phone Misuse by Teachers in Schools

The second research question first required all participants to share their experiences on whether or not teachers abuse their mobile phones in schools. Then, they were required to indicate the common forms of misuse they had experienced, if any.

The findings indicated a consensus from all the participants that abuse of mobile phones by teachers was rampant in schools. The assertions below affirm:

Smartphones have escalated teachers' violation of professional ethics... It has been a norm for some teachers to chat, play games or listen to music via earphones while invigilating examinations (a male teacher at school "C").

The quality assurance officer supported this:

Misuse of mobile phones by teachers is apparent in schools. They use it to download and duplicate lesson plans and pretend to have prepared them...

A female student at school "A" added:

We have been witnessing our teachers misusing their phones every day. They chat in examination rooms, respond to phone calls and messages while teaching in classrooms, and disrupt our attention...

It is evident from the quotations that the abusive use of mobile phones by teachers is prevalent in the studied schools. The participants described varied common forms of mobile phone abuse committed by teachers. They included:

Using mobile phones in classrooms: The participants reported that almost all teachers enter classrooms with their phones switched on. When they are alerted to incoming calls or messages, regardless of whether a critical part of the lesson is being presented, teachers often step outside to talk on their phone or talk even while in the classroom, leaving students unsupervised. The findings suggest that when teachers talked for quite a long time, they tended to forget where they ended and asked students to remind them. Students' failure to remind them could either lead to punishment or mark the end of the lesson for that particular day. A female student at school "C" clarifies:

Almost all teachers enter classrooms with their phones switched on. When they ring, the wise one may simply say "sorry" and step outside the class to attend it. They can spend a long time forgetting where the lesson had ended and may request us to remind them. When we fail to remember, some can punish us or mark the end of the lesson for that day, claiming that we are lazy.

The findings entail that teachers waste much instructional time for non-academic-related purposes in schools.

Usage of mobile phones in examination rooms: The participants reported that shortly after distributing question papers and letting the examination start, teachers tend to sit at the back of the examination room and immerse themselves in their phones, chatting. They neither move around to ensure students' observance of examination regulations nor attend to their needs for additional papers or clarifications on time. The practice was common, especially during the administration of internal school-based examinations. The behaviour provided an unfair advantage for students to cheat. A male teacher at school "B" asserts:

Teachers breach examination rules, especially during the invigilation of internal examinations. After letting students start writing, they sit down and turn to their phones and chat or play games. They do not attend to students' needs for extra answer sheets or clarifications timely...

A male student at school "B" added:

After distributing examination papers and allowing starting the examination, teachers find back seats and immerse into their phones. Unless a student knocks on the desk, can raise a hand for extra paper or clarifications with no response... Students can exchange answers unnoticed...

The finding may entail that some teachers might have insufficient knowledge of their roles as examination invigilators. Also, examinations, particularly the internally-administered ones, are poorly supervised and jeopardise the real purpose of examinations.

Prolonged concentration on social network sites: The participants showed that teachers spend much of their working hours online. They chat, watch movies and play games at the expense of academic duties. As a result, some either forget to attend their class sessions or attend late. Also, some failed to accomplish their duties, such as marking students' assignments timely. The head of school "B" noted:

Some teachers spend much of their working hours on social media and forget to attend to their class periods...they do not get time for thorough preparations and marking of students' assignments...

A female student at school "B" supported:

Teachers spend much of their time chatting. Some come late to class, and we hardly get their attention when we need academic support.

Teachers' prolonged concentration in chat rooms is a serious concern during working hours. It undermines teachers' commitment to work and the government's devotion to providing its citizens with quality education.

The disclosure of official information: Disclosing confidential official information was among the prevalent forms of mobile phone abuse in schools. The participants reported that some teachers use their phones to record confidential information, capture photos of confidential documents, and share with friends or post them online. A male teacher at school "B" said:

With smartphones, there is no more secrecy at schools. Sometimes a teacher may find the official document stamped "Confidential," yet he/she may photo it and share it in WhatsApp groups...

The quality assurance officer supported this claim by declaring that some teachers and their school heads tended to leak confidential information related to school inspections. Those tendencies compromise the attainment of quality education. The quotation elaborates:

... As we finish inspecting school "A," teachers tend to inform their colleagues at school "B" about things we have inspected. Sometimes they share inspection reports. This tendency compromises the quality of education in our schools.

The TSC officers were also vocal about this. They cited the leak of the national Primary School Leaving Examination through WhatsApp groups in 2018 as evidence of the breach of confidentiality in schools. They argued that confidentiality disclosure is against the teachers' professional code of conduct and state laws.

Cyber bullying: The participants admitted to having experienced cyber bullying in schools. They reported that some teachers use online forums such as WhatsApp to send aggressive messages or upsetting calls to colleagues. The head of schools and discipline masters had received some bullying cases involving teachers, females particularly. During the hearing of the cases, they often come across terrifying insults, wrong names, and other forms of abusive language exchanged between teachers. The discipline master at school "C" remarked:

Some teachers here, females mainly, use their phones as weapons to harass and threaten their rivals. Some days ago, we had a disciplinary case involving two female teachers. They exchanged disgusting text messages not expected of a professional teacher, so they were about to fight in the office...

Accordingly, two female students admitted having experienced upsetting phone calls from their teachers after rejecting their proposals to engage in love affairs. A student at school "B" added:

One teacher required my phone number... Later, he called and convinced me to engage in love affairs, but I rejected. Then the teacher insulted and warned me that something terrible would happen if I dared to tell anyone.

From the findings, it is evident that cyber bullying occurs in educational settings at an alarming pace. It is paramount to draw attention to this alarming threat and address it before it causes great harm.

Sexting: The findings disclosed that teachers use their mobile phones to engage in sexting of a varied nature. They download and share photographs and videos of an inappropriate nature through social network sites. Such materials often spread far more on public sites and inadvertently reach minors. The female teacher at school "C" had this to say:

Mobile phones have made teachers suppliers of nude pictures. They download, receive, and share these materials, regardless of their impact on society. This behaviour is not expected of a professional teacher, even if we often take it as a joke...

On the other hand, female students admitted receiving sexually suggestive messages from some male teachers. They reported that some teachers required students' phone numbers or provided theirs. After getting the numbers, they usually start exchanging chats associated with sharing sexually explicit messages and nude images. Students added that sexting was rampant when student teachers arrived for the Teaching Practice. Some male student teachers used their phones to seduce female students. Some provided some females with new phones to keep in touch with them. A female student at school "B" clarified:

One teacher gave me his phone number and told me to call him later. When I called, I was shocked when he said he loved me. I blocked him, and ever since, we are not in good terms. It is worse when student teachers from universities arrive here for teaching practice. They seduce us through the devices, and some are ready to buy you a new phone to keep in touch...

The district TSC officer confessed that some teachers blur the professional boundary of their relationship with students. The officer cited an incident whereby a male teacher was dismissed from service after he was found guilty of showing students pornographic materials through his mobile phone. The findings signify that sexting is a growing concern among pre-service and in-service teachers. Furthermore, female students seem to be more vulnerable if they are not protected.

Taking and posting other persons' photographs online: The findings indicated that some teachers use their phones' cameras to take pictures and videos of colleagues and students without their consent and post them online. They could take and post photos and videos of their colleagues when falling asleep, marking students' exercise books, or punishing students. They post photos and videos of students who misbehave, fail to perform specific academic tasks in class, or the poorly scored students' examinations or assignment papers. This practice more often caused several problems in schools and the wider community. A male teacher at school "B" Admitted:

One day, a teacher captured a photo of his asleep friend, captioned it with some joking words, and posted it on the staff WhatsApp group. The photo caused a severe conflict between the two and disturbed everything...

Also, a male teacher at school "C" supported:

...Teachers record students who fail to pronounce some words or poorly scored examination papers and post online without consent. This tendency is against teachers' code of ethics...

The TSC officer admitted to having witnessed students' papers with poor scores posted online. The officer said that the practice was an infringement of individual privacy, the teachers' code of conduct, and state law. The finding suggests the need for teachers to be aware that infringement of confidentiality is a criminal offense that deserves punishment.

Using mobile phones in staff meetings: It also emerged that teachers tend to pay greater attention to their mobile phones than to the main agenda during official meetings. They tend to hold their devices under the tables, texting, surfing, reading, or playing games while meetings are in progress. The participants said that it often occurs while discussing a critical agenda in a meeting, and then unexpectedly, the ringing tone or teachers' movements outside the room interrupt the attention. Showing disappointment, the head of school "C" said:

Staff meetings are a place where teachers share ideas and set goals and strategies to attain the set goals...many teachers abuse this opportunity by concentrating on their phones. The meeting ends while some teachers have captured nothing... The practice affects the implementation of the resolutions reached.

It is evident from the findings that misuse of mobile phones during meetings is a threat to the wellbeing of a school and the attainment of educational goals.

Cheating: The participants reported that teachers engaged in different forms of cheating through their phones. One form of cheating reported was the tendency of teachers to be absent at school but pretending to be in classrooms or nearby when called. The head of school "C" clarified in detail this situation:

You may find a class without a teacher, but when you call a respective teacher, she/he can whisper, "sorry", I am in the class," and switch off the phone. Some cheat that they are sick while actually, they attend their private businesses.

Other reported instances of cheating were concerned with examination dishonesty. The participants cited the leakage of the national Primary School Leaving Examination that occurred in 2018 in Dar es Salaam, Dodoma, Mara, and Mwanza regions as evidence for this concern. Consider the quotation from a male teacher at school "B":

Examination malpractices leakage through the devices has been a growing concern. We all heard of teachers and their superiors who leaked the Primary School Leaving Examination through WhatsApp in 2018 in Dodoma, Dar es Salaam and Mwanza regions. This kind of cheating happens in many schools secretly.

Also, the Education Officer declared having experienced cheating with mobile phones' aid during the mock examination administration. The officer said they caught some teachers with a list of specimens required for the Biology subject practical examination recorded on their phones some days before students sat. They aimed to share the list with the laboratory technicians of their respective schools to assist their students in performing better. These incidents indicate that mobile phones have given cheating a new but more dangerous twist. The findings entail the need for more effort to ensure the safety of examinations in schools in this digital era.

Discussion

The study's findings revealed that though most teachers own mobile phones that can support teaching and learning, very few utilise them fully for educational purposes. The findings are consistent with the findings of studies by Suki and Suki (2009), Nordin et al. (2010), Ismail et al. (2013), Msuya (2015), and Mwapele et al. (2018). These findings provide an insight that the government's commitment to integrating the use of a mobile phone as a strategy to promote access to quality education has not yet moved beyond general policy statements. In this regard, it can be argued that the use of ICTs such as mobile phones is a feasible solution to the problems facing the education sector in most developing countries like Tanzania. Thus, efforts to adopt the technology must provide teachers with adequate knowledge to use new technologies in education. Studies (UNESCO, 2017; Mwapele et al., 2018) indicate that teachers who use technologies have a relative advantage over colleagues who do not. Teachers must be enthusiastic about adopting changes and deliver their lessons with modern approaches and tools such as mobile phones.

On the other hand, the study revealed various forms of mobile phone abuse by teachers in schools. Teachers make and receive phone calls regularly in classrooms. A similar practice was noted as prevalent in South Africa, Malawi, and Ghana by Porter et al. (2016). Arguably, effective learning requires proper use of time and a conducive environment. Teachers who make or receive phone calls in classrooms breach the professional code of conduct. They create a grim distraction in classrooms and waste instructional time. This situation indicates a need to promote responsible phone use, both inside and outside the classroom.

The study revealed that teachers pay more attention to mobile phones during the invigilation of examinations. This practice was not significantly unique in this study. Various reports have repeated the same (Irira, 2014; DUCE, 2022). The proper invigilation of examination is a critical factor in determining the attainment of educational goals. Thus, teachers' inclination toward mobile phones portends doom in attaining educational goals.

Teachers' time spent on social network sites was another concern revealed in this study. The finding correlates with the study by Porter et al. (2016) that teachers in South Africa, Ghana, and Malawi failed to provide students with academic support due to prolonged sessions online. This concern implies that in most cases, teachers hardly spend their time accomplishing their professional duties such as preparation of their lessons and marking assignments. It might also be an explanation as to

why some teachers fail to cover their subjects' syllabi. Thus, teachers' failure to accomplish their duties due to excessive chatting is negligence and deserves serious attention.

Cheating, especially in examinations, was among the forms of mobile phone abuse revealed. This situation was not significantly different in other countries like Kenya (Karanja, 2016). An examination is a vital tool for evaluating the attainment of educational objectives. So far, when teachers use their devices to perpetrate cheating, they deliberately undermine the quality of education and portend doom for the future of the nation's citizenry. The respective authorities must take restrictive disciplinary measures to curb this growing concern for the nation's well-being.

The findings revealed that teachers breached confidentiality through mobile phones. Teachers as civil service servants in Tanzania must understand that they are obliged by the law to maintain secrecy and confidentiality throughout their lifetime (URT, 2015). Disclosing or releasing any information without official permission is unethical and illegal. Therefore, teachers need to ensure that they obey laws in their routine use of mobile phones.

This study also revealed the misuse of mobile phones in staff meetings. Staff meetings are vital for the well-being of the school. It is a potential platform for school leaders and teachers to set goals and strategies to attain them. Teachers' inclination on phones during the meetings signifies carelessness that is likely to impede the implementation of decisions reached and, ultimately, the attainment of educational goals. To this end, teachers must pay much attention to critical matters for education development.

Similarly, cyberbullying by teachers seemed to be commonplace in schools. The finding echoes what has transpired in studies by Porter et al. (2016) and Onditi (2017). Cyberbullying can lead to emotional distress that can prompt students to stay away from school. This situation calls for the governments and the wider society to find appropriate ways of shielding educational settings from this harmful practice.

Furthermore, sexting by teachers was common in schools. The findings sustain various reports on sexting across countries (Park, 2016; Pedraya, 2016; Porter et al., 2016). Arguably, teachers hold a position of trust as crucial agents of transforming positive moral values in schools and communities. By engaging in sexting, they deserve severe punishment for betraying this trusted position and acting criminally.

Conclusions and Recommendations

Although the analysis of data in this study has shown that a mobile phone has enormous educational benefits, teachers hardly use it for educational purposes. Thus, the device plays a mundane role in enhancing teachers' pedagogical practices in schools. Also, the study has disclosed various forms of mobile phone abuse by teachers in schools, including talking and texting in classrooms, examination rooms, meetings, prolonged sessions on social network sites, cheating, sexting, and cyberbullying. These behaviours are ethically unacceptable, and they might have been impinging negatively on the efficiency of the education system in Tanzania. Therefore, teachers need a framework that will provide clear direction for the positive use of the device for pedagogical purposes. Due to the rampant abuse of mobile phones, it is imperative for the curricula at all educational levels to incorporate content related to ICT use etiquette. For greater policing and for abusive uses of mobile

phones to be reported where necessary, it is imperative for clear procedures for reporting all forms of abuse be laid out. Because the current study confined itself to a limited sample in one district in the country this warrants further research that will cover a wider area and larger sample.

References

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Bryman, A. (2012). Social research methods. Oxford University Press.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approach* (4th ed.). Sage Publications Limited.
- Denscombe, M. (2007). *The good research guide for small-scale social research projects* (3rd ed.). Open University Press.
- DUCE. (2022). Quality assurance monitoring report for the first semester-2022. Dar es Salaam. DUCE.
- Gibbons, A. J., Galloway, D., Mollel, A., Mgoma, S., Pima, M. & Deogratias, E. (2018). Mobile phone use in two secondary schools in Tanzania. *Educational Information Technology*, 23, 73-92.
- Hossain, D. M. (2011). Qualitative research process. Postmodern Openings, 7, 143-156.
- International Telecommunications Union [ITU] (2021). *Quarterly communication statistics*. Telecommunication Development Bureau-ITU.
- Irira, E. M. (2014). *Effective management of examinations to achieve quality assurance: A case of the Institute of Adult Education (IAE).* The Open University of Tanzania.
- Isaacs, S., Roberts, N., & Spencer-Smith, G. (2019). Learning with mobile devices: A comparison of four mobile learning pilots in Africa. *South Africa Journal of Education*, *39*(39), 1-3.
- Ismail, I. B., Azizan, S. N., & Azman, A. N. (2013). Mobile phones as a pedagogical tool: Are teachers ready? *International Education Studies*, 6(3), 36-47.
- Jere-Folotiya, J. (2014). The effect of using a mobile literacy game to improve literacy levels of grade one students in Zambian schools. *Educational Technology Research and Development*, 62(4), 417-436.
- Kafyulilo, A. (2014). Access, use, and perceptions of teachers and students towards mobile phones as a tool for teaching and learning in Tanzania. *Education and Information Technologies*, 19(1), 115–127.
- Karanja, S. (2016). The report reveals how teachers and students used phones to cheat in KCSE. Daily Nation.
- King, N., & Horrocks, C. (2010). Interviews in qualitative research. Sage Publications.
- Lubasi, S. (2017, May 2). Ndalichako awakemea walimu wanaoshinda kwenye WhatsApp [*Ndalichako warns teachers over prolonged sessions on 230 WhatsApp*]. TSN. http://www.habar ileo.co.tz
- Magwa, S., & Magwa, W. (2015). A Guide to conducting research: A student handbook. Strategic Book Publishing Rights Co., LLC.
- Mertens, D. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative and mixed methods* (3rd ed.). Sage Publications.
- Mfaume, H., & Bilinga, M. (2017). Prevalence of teachers' professional malpractices in Tanzanian public secondary schools: What ought to be done? *Journal of Education and Training Studies*, 5(2), 43-52.
- Mfaume, H. (2020). *Modern technology and teachers' professional ethics in Tanzania: An investigation in the use of mobile phones by teachers in secondary schools.* [Ph.D. thesis, University of Dar es Salaam].
- Ministry of Education and Vocational Training [MoEVT]. (2007). *Information and Communication Technology policy for basic education.* Dar es Salaam: Ministry of Education and Vocational Training.
- MoEST. (2017). Feasibility study exploring e-learning initiatives at secondary schools in Tanzania mainland. Dodoma.

- Mogalakwe, M. (2006). The use of documentary research methods in social research. *African Sociological Review*, *10*(1), 221-230.
- Msuya, O. (2015). Mobile phone in teaching and learning in secondary schools in Tanzania. *International Journal of Education and Research*, 3(5), 207-218.
- Mtebe, J. S., Kandoro, A., Kissaka, M. M., & Kibga, E. (2015). Using SMS, mobile technology to access the mastery of subject content knowledge of science and mathematics teachers of secondary schools in Tanzania. *Journal of Social, Behavioural, Education, Economic, Business and Industrial Engineering*, 9(11).
- Mtebe, J. S., & Raphael, C. (2020). Eliciting in-service teachers' technological pedagogical content knowledge for 21st-century skills in Tanzania. *Journal of Learning for Development*, 5(3), 263-279.
- Mwapele, S. D., & Roodt, S. (2018). Teacher's adoption and use of mobile devices outside the classroom for learning in Africa: A case study of secondary school teachers in South Africa and Tanzania. *Conference on Information Communications Technology and Society (ICTAS)*, March, 2018, Durban, South Africa.
- National Examination Council of Tanzania [NECTA] (2009). *Evaluation of the conduct of the primary school-leaving examination in Tanzania mainland*. http://www.unicef.org
- Nazir, T. (2020). Impact of classroom phubbing on teachers who face phubbing during lectures. *Psychology Research on Education and Social Sciences,* 1(1), 41-47
- Nordin, N. M., Hamzah, M. I., Yunus, M. M., & Embi, M. A. (2010). The mobile learning environment for the inservice school administrators. *Procedia — Social and Behavioural Sciences*, 7, 671-679
- Omiunu, O. (2017). Paradoxical modeling of negative uses of ICT and their implication among secondary school students in Oyo State, Nigeria. *Library Philosophy and Practice*, 14(85), 1-32.
- Onditi, H. Z. (2017). *Cyberbullying in Tanzania: The adolescents' experiences and psychosocial factors influencing coping strategies.* The University of British Columbia.
- Park, E. N. (2016). Bergen country substitute teacher arrested on child porn charges. CBS.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.). Sage Publications.
- Pedraya, S. (2016). *Woodhaven high school teacher accused of sexting two students resign*. http://www.walesonline.co.uk/news/education
- Porter, G., Hampshire, K., Milner, J., Munthali, A., Robson, E., de Lannoy, A., & Abane, A. (2016). Mobile phones and education in Sub-Saharan Africa: From youth practice to public policy: Mobile phones and education in Africa. *Journal of International Development*, 28(1), 22-39. doi:10.1002 /jid.3116.
- Ramadhan, M. (2018, October 3). Dangerous examination cheat network. http://www.dailynews.co.tz
- Roberts, N., & Vanska, R., & Eskelinen, S. (2015). From challenging assumptions to measuring effects: Researching the Nokia mobile mathematics services in Africa. *South Africa Journal of Education*, 35(2), 1-13.
- Suki, N. M. (2009). The use of the mobile device for learning: A case study. *International Journal of University Teaching and Faculty Development*, 1(1), 2-11.
- Swarts, P., & Wachira, E. (2010). *Tanzania: ICT in education situational analysis*. (Global e-Schools and Communities Initiative,) (pp. 20-33).
- Teachers' Service Commission [TSC]. (2016). Tanzania teachers' code of conduct. Dodoma: Government Press.
- Thomas, K., & O' Bannon, B. (2013). Cell phones in the classroom: Pre-service teachers' perceptions. *Journal of Digital Learning in Teacher Education*, 30(1), 11-20.
- Turner, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *Qualitative Report*, 15(3), 754-760.
- UNESCO. (2017). Supporting teachers with mobile technology. UNESCO.

United Republic of Tanzania [URT]. (1996). *Code of ethics and conduct for the public service Tanzania*. The Government Printer.URT. (2015). *Cybercrimes Act, 2015*. The Government Printer.

VanNuland, S., & Kandelwal, B. P. (2006). Ethics in education: The role of teachers' codes. IIEP-UNESCO.

Willig, C. (2013). Introducing qualitative research in Psychology. McGraw-Hill.

Yin, R. K. (2011). Qualitative research from start to finish. The Guilford Press.

Author:

Hamisi Mfaume is an assistant lecturer in the Department of Educational Foundations Management and Life Long Learning, Dar Es Salaam University College of Education. Email mfaumeham@gmail.com

Cite this paper as: Mfaume, H. (2022). Mobile pedagogical technologies and teachers' professional ethics in Tanzania: An inquiry into the use and abuse of mobile phones by teachers in secondary schools. *Journal of Learning for Development*, 9(2), 176-189.