

ESL TEACHERS' APPROACHES TOWARDS THE ACCEPTANCE OF EDUCATIONAL TECHNOLOGY INTEGRATION IN NON-FORMAL EDUCATION: A CASE FROM KENYA

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ABSTRACT

Aim. In efforts to handle the negative impact of the COVID-19 pandemic, language schools in Kenya were forced to organise a smooth transition from physical to virtual classroom by incorporating educational technologies in virtual learning and teaching processes. Such a shift was new to teachers and required additional efforts to master the peculiarities of organising virtual English classes. Thus, this study aims to explore Kenyan ESL teachers' perspectives towards the acceptance of educational technology integration in non-formal education.

Methods. A qualitative approach was adopted in this study. Eleven teachers from two private foreign language schools participated in semi-structured in-depth interviews, where they answered questions based on the elements of the Technology Acceptance Model (TAM).

Results. The findings showed that most teachers' approaches towards the acceptance of educational technologies were mainly positive and they intend to integrate them in their ESL classroom. The results of the qualitative data analysis also demonstrated that age is one of those personal characteristics that might hinder teachers' willingness to adopt educational technologies while teaching ESL.

Conclusions. This study also found that the variety of adopted educational technologies was not extensive. Therefore, teachers' awareness, interest, and digital competences should be further developed.

Practical application. The herein presented research findings are of a significant importance for the enhancement of teachers' competences to apply educational technologies while teaching ESL in Kenya. It also has implications for the practice that is relevant for ESL teachers in non-formal education as well as curriculum organisers.

Keywords: educational technologies, online learning technologies, Technology Acceptance Model (TAM), English as a Second Language (ESL), non-formal education



INTRODUCTION

Even though technological innovations had been widely encouraged to be integrated into school curriculum, a huge number of educational institutions all over the world, including language schools in Kenya, encountered with a negative impact of the COVID-19 pandemic, which consequently led to the transition from physical to virtual classroom. This transition required intensive and rapid technology integration, which teachers had to implement to ensure the maintenance of effective students' learning outcomes and experiences. Some of them were asked by school administration to adopt certain online learning technologies, such as Skype and Zoom, others used the tools they had been aware of before. It has been found that there are over 226 technologies that can be freely accessed via a browser for implementing a productive and interactive process of teaching and learning (Bower & Torrington, 2020). According to Francisco Javier Palacios Hidalgo et al. (2020), foreign and second language teachers have to enhance their awareness and digital competences in order to be able to increase the utilization of educational technologies in teaching and learning processes. Moreover, as Atipat Boonmoh et al. (2021) emphasize, the integration of technologies in a teaching and learning process become meaningful and add their educational value only when teachers decide to use them in a classroom. It is essential to understand educators' attitudes that "describe general individual feelings of favour or disfavour toward a specific behaviour" (Shih, 2004, p. 720). However, studies of educational technologies in ESL curriculum in non-formal education are limited in Kenya. Therefore, this present small-scale study explores teachers' perspectives towards the acceptance of educational technologies while teaching ESL.

The current paper reports on the results of the research beginning with a literature overview, followed by a description of the research method. Then, the results of this small-scale study are presented and discussed. Finally, conclusions are drawn.

LITERATURE OVERVIEW

The process of using technologies has proven its effectiveness in various fields of work, including education (Hamidi et al., 2011; Kadiyala & Crynes, 2013; Pazilah et al., 2019; Ratheeswari, 2018). As the literature overview demonstrates, applying technology in language teaching is of a significant importance that results in innovative and authentic life-long learning (Kelvin & Kim Hua, 2020; Pazilah et al., 2019). According to Dincai Koksai (2004), language learning and teaching become more authentic and effective when a variety of technologies, such as TV and radio, computers, the Internet, e-mails, PowerPoint presentations, videos, DVDs, C.A.L.L., are integrated. It has been established that other Web 2.0 tools, including forums, blogs, Facebook, YouTube, Instagram, Twitter and others, do not

only transform traditional ways of teaching and learning, but also facilitate interaction among online learners. To illustrate, a conducted research by Siti Shuhaida Shukor (2015) showed their respondents' positive attitudes towards the integration of Facebook in ESL, which facilitated collaborative brainstorming processes and resulted in improved writing skills. Another study conducted by Shevany Anumanthan et al. (2022) found TikTok as an effective tool to enhance primary school ESL pupils' vocabulary knowledge. Similarly, Huining Yang (2020) emphasizes the importance of using different social media applications for educational purposes. His research showed positive Chinese secondary school students' perspectives of TikTok integration in English classroom.

The literature overview demonstrates that teachers' perspectives towards the use of technologies while teaching English have been extensively investigated. For instance, the aim of the study conducted by Parilah Shah and Joscyln Empungan (2015) was to explore Malaysian English instructors' attitudes towards the application of Information and Communications Technology (ICT) for teaching English literature. The research findings revealed that despite the fact that teachers' attitudes were mainly positive, ICT was not frequently integrated for teaching English literature due to a lack of training on how to integrate technology in their classroom, a lack of time, and connection issues. Along similar lines, Vivian Anak Undi and Harwati Hashim's (2021) findings showed that Malaysian primary school teachers' approaches towards integrating ICT in ESL classrooms were partially positive due to an insufficient amount of time required for learning to master the integration of a new hardware and software. In another study, Ali Dogan and Azamat Akbarov (2016) explored Turkish teachers' perspectives towards the application of mobile gadgets in ESL classroom. The results showed that teachers held mainly positive attitudes. However, there were a few obstacles highlighted, which included insufficient training, students' approaches, school administrations, and pedagogical justification.

The overview of the relevant literature shows that one of the most popular models of technology acceptance is the TAM (Technology Acceptance Model) that includes two cognitive beliefs, perceived usefulness and perceived ease of use, which greatly contribute to perceiving individuals' acceptance of online learning (Ghani et al., 2019). Similarly, Hung-Pin Shih (2004) established that the two beliefs of the TAM model, perceived usefulness and perceived ease of use, have a positive impact on users' intentions to use Information System (IS). Other two important constructs of the TAM model are attitudes and behavioural intention to use technology. According to Ghani et al. (2019), behavioural intention is affected by attitude, which influences users' intentions to actually adopt technology. This implies that the TAM model is an accurate model for assessing teachers' acceptance towards the use of technology in their classroom.

According to Matt Bower and Jodie Torrington (2020), educators can have access to 226 learning technologies (classified into 40 types and 15

clusters) that can be freely accessed online, and it provides teachers with a possibility to “facilitate constructive and collaborative learning” (Leow & Neo, 2015, as cited in Bower & Torrington, 2020, p. 2). Based on the relevant literature, the current small-scale research employed the Typology of Free Web-based Learning Technologies (Bower & Torrington, 2020) in order to analyse which of them are utilised by Kenyan ESL teachers in foreign language schools.

As there is little known research that has been focused on ESL instructors’ approaches towards technology integration in non-formal education, this study aims to fill this gap and to contribute to knowledge by reporting on the results of a small-scale research that explored Kenyan ESL teachers’ attitudes towards the integration of educational technologies for teaching ESL in non-formal education.

METHODOLOGY

The goal of this research is to explore Kenyan teachers’ perspectives towards the acceptance of educational technology integration for teaching ESL in non-formal education settings.

Research Setting and Participants

Two private language schools in Nairobi, Kenya were selected as the research site. Kenya is a multilingual society with over 40 spoken tongues, where English is extensively used as an instruction language that is “a significant factor in academic achievement and subsequent social mobility” (Dhillon & Wanjiru, 2013, p. 14). English is a dominant language in Kenya due to a colonial legacy, and it has effect on language learning in multilingual contexts (Dhillon & Wanjiru, 2013). Consequently, proficiency in English in Kenya is seen as a fundamental tool for social mobility as well as the achievement of academic goals (Dhillon & Wanjiru, 2013). Therefore, Kenya was chosen as the research setting for this study. The selection of foreign language schools involved a method of convenience sampling, which means that a researcher chooses the sample that is close to hand (Kardelis, 2017). In line with this, two private language schools that were available for the researcher, who visited Kenya in September 2022, were selected and provided with the name codes of A and B.

In terms of the selection of participants, informed consent had been obtained before conducting interviews. According to Carlos Miguel Ferreira and Sandro Serpa (2018), informed consent refers to an autonomous individual who is capable of making independent decisions. In line with this, 11 ESL teachers from two foreign language schools, who had voluntarily agreed to participate in the study, were selected as interviewees. As Paul Burden (1982) established, teacher career development contains a survival stage, which is the first year of teaching, an adjustment stage, which

includes the second, third, and fourth years, and a mature stage, which refers to the fifth year of teaching and beyond. In line with this theory, foreign language school teachers were classified into two groups: novice teachers (NT) and expert teachers (ET). Novice teachers were the teachers who were at the survival and adjustment stages with less than five years of teaching experience, whereas expert teachers were the ones at the mature stage with five years of experience and beyond. Table 1 presents interviewees' demographic information.

Table 1

Interviewees' demographic information

Novice Teacher (NT)	Gender	Age	Qualification	Teaching Experience
ANT1	F	26-30	Postgraduate	4 years
ANT2	F	31-35	Postgraduate	1 year
BNT1	F	20-25	Undergraduate	3 years
BNT2	M	26-30	College	3 years
BNT3	F	26-30	Undergraduate	3 years
Expert Teacher (ET)	Gender	Age	Qualification	Teaching Experience
AET1	F	51-55	College	12 years
AET2	M	51-55	Undergraduate	30 years
AET3	F	36-40	Postgraduate	14 years
AET4	M	51-55	Postgraduate	20 years
BET1	M	51-55	College	12 years
BET2	F	41-45	College	8 years

Source. Own research.

Data Collection and Analysis

The main research methods applied in the current small-scale study included a qualitative methodology. The present qualitative study was conducted based on the Technology Acceptance Model (TAM) developed by Fred Davis et al. (1989) to investigate Kenyan teachers' acceptance towards the use of educational technologies for teaching ESL in the context of non-formal education. The semi-structured questions were designed based on four related constructs, including Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioural Intention to Use, which were modified to meet the context of the present small-scale study. According to Liudmila Rupšienė (2007), semi-structured interviews involve a pre-determined thematic framework that allows for flexibility while conducting a qualitative research. The aim of the research as well as the confidentiality had been explained to all the 11 participants of the study before they were interviewed. The interviews were conducted individually in the classrooms of their schools in Nairobi. All the interviews

were recorded using a tape-recorder and later transcribed excluding interviewees' personally identifiable data.

To meet the aim of the present study, the obtained transcripts were analysed according to qualitative analysis procedures by adopting the inductive content analysis method. According to Satu Elo and Helvi Kyngas (2008), the inductive approach is applied for constructing more knowledge on a certain phenomenon. The process of adopting the inductive approach begins with specific observations and moves to general conclusions (Creswell & Plano Clark, 2007).

Research Limitation

The limitation of this study is its scope, i.e. two private foreign language schools with their eleven ESL teachers were involved in this research. Therefore, this limitation does not allow to develop wide-scale generalisations.

FINDINGS

The current small-scale research employed the Typology of Free Web-based Learning Technologies (Bower & Torrington, 2020) in order to analyse which of them were integrated by ESL teachers in foreign language schools in Kenya and classify them accordingly. It was found that there were 8 types of educational technologies that belong to 5 clusters, including Note-taking and Document Creation, Video Tools, Multimodal Production Tools, Learning Management Systems, and Web-conferencing Tools. The results may be observed in Table 2.

Table 2

Educational Technologies adopted by ESL teachers

Clusters of Educational Technologies	Types of Educational Technologies	Teachers who reported to be integrating them
Note-taking and Document Creation	Google Docs	BNT1, BNT2
Video Tools	YouTube	AET4, BET1, BET2, BNT3
Multimodal Production Tools	Prezi	BNT1, BNT3
	Microsoft PowerPoint Online	BNT2, BET1
Learning Management Systems	Google Classroom	ANT2, AET3
Web-conferencing Tools	Zoom	All 11 teachers (5NT, 6 ET)
	Google Meet	ANT2
	Skype	AET3, AET4, BNT1, BET2

Source. Own research.

This research aimed to explore ESL instructors' perspectives towards the acceptance of educational technologies in their classrooms. The main theory applied in this research is the TAM model, which includes the elements of Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioural Intention to Use, that are related to teachers' acceptance for integrating educational technologies in ESL classroom. The following paragraphs describe the teachers' approaches towards the aforementioned TAM elements in detail.

Teachers' Approaches towards Perceived Usefulness

Perceived Usefulness refers to the degree to which an ESL teacher believes that integrating educational technologies in an ESL classroom enhances their students' learning performance. In this study, Perceived Usefulness was measured with the help of four TAM constructs that were specifically selected for the context of this research. The chosen four items as well as interviewees' responses are listed in Table 3.

Table 3

The selected TAM items of Perceived Usefulness and ESL teachers' responses

TAM Element	Selected Items	Interviewees	
		Agreed	Disagreed
Perceived Usefulness	Educational technologies improve learning performance.	4 NT	1 NT 6 ET
	Educational technologies increase academic productivity.	3 NT	2 NT 6 ET
	Educational technologies enhance the effectiveness of learning.	11 (5 NT, 6 ET)	-
	Educational technologies are useful for teaching ESL.	11 (5 NT, 6 ET)	-

Source. Own research.

It was found that teachers' perspectives towards Perceived Usefulness were partially positive. Six expert teachers and one novice teacher partially disagreed with the statement that educational technologies improve learning performance. This could be seen from teacher AET1's, ANT2's, BET1's responses: "There are things I feel limited about. Students do not see my face, and I prefer visual aid. Sometimes it is complicated to share information via educational technology tools" (AET1). Similarly, teacher BET1 emphasized the practicality of a physical classroom:

I prefer the physical part, but when you say educational technologies, then yes, when I look at the laptop, video materials, they are useful because students get to see the practicality of the language, and they have a possibility to listen to native speakers. (BET1)

Also, teacher ANT2 said that “it depends on students’ age, and how much they have been exposed to using technologies and other available tools as some students do not even have a computer, so there is no room for improving learning performance.” However, four novice teachers agreed with the statement that educational technologies improve learning performance. For instance, interviewee ANT1 stated that “educational technologies do improve learning performance. For instance, we use smart boards, and I believe that it makes students more interested in the diversity of learning- we can look at something, listen to something. It makes learning even more interactive.” Along similar lines, teacher AET3 emphasized the importance of educational technologies and stressed her agreement that they improve learning performance by sharing an example from her teaching experience: “In another language centre there was no technology at all, so students’ learning was not so effective” (AET3).

When asked if educational technologies increase students’ academic productivity, eight teachers disagreed and three teachers agreed. Teacher AET4 explained his disagreement by stating:

I don’t think that educational technologies improve academic productivity. I think the Internet encourages people live fast, and, as a result, they become impatient. Academic productivity means that you have to stop, analyse something more carefully, but nowadays students’ minds are already used to running fast.

Interviewee BET1 does not believe that educational technologies increase students’ academic productivity by stating that the process of teaching through educational technologies restricts teachers’ ways of applying different methodologies: “There are things I feel limited about. I cannot do as much as during physical classes (dialogues, matching exercises). Also, if there are students of low levels, then it is much harder to work online and through technology” (BET1). Similarly, teacher ANT2 stated that “I don’t think it improves because their academic productivity depends on the drive of the students.” These findings prove the importance of students’ preparation and are in line with the Araya Ramsin and Hayley Mayall’s (2019) research results who found that ESL students are better prepared for technology integration if sufficient training is provided at the very beginning of the course. On the contrary, three novice teachers indicated that educational technologies contribute to the enhancement of academic productivity. This could be seen from teacher ANT1’s response: “Yes, students are more interactional, which results in improving their academic productivity.”

It was found that all eleven teachers believe that educational technologies enhance the effectiveness of learning and are useful for teaching ESL. This could be illustrated by some interviewees’ answers:

- ANT2: Educational technologies connect people from all over the world.

- BET1: Absolutely, there are a number of activities you can do through educational technologies, and it is nothing like working with a traditional textbook.
- BNT2: Yes, definitely. I have done both ways of teaching- with and without technology. Educational technologies make teaching and learning interesting.

Teachers' Approaches towards Perceived Ease of Use

Perceived Ease of Use refers to the degree to which ESL instructors believe that the process of integrating educational technologies for teaching English would be implemented with a minimum of effort. The current small-scale study included a design of three items, which are shown in Table 4.

Table 4

The selected TAM items of Perceived Ease of Use and ESL teachers' responses

TAM Element	Selected Items	Interviewees	
		Agreed	Disagreed
Perceived Ease of Use	Educational technologies are easy to use.	4 NT 1 ET	1 NT 5 ET
	It is easy to become skillful in using educational technologies.	4 NT 1 ET	1 NT 5 ET
	The interaction with educational technologies is clear.	5 NT 2 ET	4 ET

Source. Own research.

It was found that for the majority of ESL teachers, especially expert ones, using educational technologies is not an easy process. Five expert teachers and one novice teacher reported that it required some efforts to learn how to integrate educational technologies in their classroom. To illustrate, teacher AET1 stressed that additional efforts and preparation are necessary if classes are organized online: "It includes extra efforts. During COVID-19 I was teaching students who were far way in Kenya. There were power problems, and I didn't know what to do." Similarly, interviewee AET2 emphasized that for the teachers of younger generations it is easier to learn how to integrate technology in the process of teaching and learning. Also, it was acknowledged that it is not that difficult to become skilful in learning how to interact with it:

It did require time for me to learn to use, for example, Zoom. We had not been exposed to the computer that much before. Younger generations find it easier. I had to be taught 2 or 3 times. It is not very easy for the people of an older generation. However, once you learn it, it becomes pretty easy. (AET2)

A novice teacher AET2 reported that the complexity of using educational technologies depends on the type of them and confirmed that it takes time to learn how to use it: "Not all of them are easy to use. For example, Google Meet is complicated, it's not that easy. Some of them are easy, but still you need to get used to it." The results of the current small-scale study demonstrate novice teachers' positive approaches towards the interaction with educational technologies. ANT1: Yes, they are really easy. I am a generation of technology age, so I quickly understand how to use them. ANT2: For me yes, it is easy to interact with technology because I am of a younger generation.

Teachers' Approaches towards Attitude

Attitude refers to the degree to which ESL teachers judge the use of educational technologies based on an evaluative effect. In this study, Attitude was measured with the selection of three TAM items that were designed for the context of this research. The chosen items may be observed in Table 5.

Table 5

The selected TAM items of Attitude and ESL teachers' responses

TAM Element	Selected Items	Interviewees	
		Agreed	Disagreed
Attitude	I feel positive towards the use of educational technologies in ESL classroom.	11 (5 NT, 6 ET)	-
	It is a good idea to integrate educational technologies for teaching English.	11 (5 NT, 6 ET)	-
	Educational technologies help to make students more engaged in learning.	4 NT 5 ET	1 NT 1 ET

Source. Own research.

The results of the current small-scale qualitative study indicate that all the interviewed teachers expressed their positive approaches towards the integration of educational technologies in ESL classroom. This could be seen by most of their responses:

- AET1: Yes, I do. I feel positive up to 75-80 %. There are other things for me to learn to get 100%. Overall, it's a good thing.
- ANT1: Definitely. It's more interesting. When I started working at this language school, I learnt how to use technology to make teaching more interesting, not boring.
- BNT1: Of course. It's adds more variety to teaching methodologies, and the process of teaching and learning becomes more dynamic.
- AET2: When I started, I wasn't really positive, to be honest. It was a

buffer. I had to learn. It took time, I had to learn and change my traditional way of teaching. I felt it was a bit of a drag. With time it became easier. It's only the learning part because it's like teaching somebody a new concept – they are reluctant at the beginning.

- AET4: I am more positive than negative. But if I need to use them now, I would advise my students to combine them with traditional methods.

It was found that educational technologies were confirmed to be suitable for teaching ESL. Teachers indicated that such technologies allow for flexibility. This could be seen from teacher AET1's response:

Technologies provide flexibility for students and teachers to learn when they are available. Some students are parents, they have children, jobs, so sometimes they have to leave their job early in order to come to this school, which sometimes takes two hours due to the traffic jam. As long as you have the Internet, you can use Zoom, and there is no need to waste time to go from point A to point B.

Interviewee BET1 stressed the importance of educational technology integration in ESL classroom due to the improvement of linguistic skills:

Oh yes, definitely, especially it's good for the pronunciation part. When students rely too much on teachers, they do not reach the full potential. Through educational technology students get extra time when they are away from the teacher. I mean they can go online and study extra materials. It's beneficial.

Teacher BET1 emphasized the importance of combining educational technologies with traditional teaching methods: "You have to combine technology with textbooks if you want to achieve the best outcomes." In this study, it was found that most teachers believed that educational technologies make their students more engaged in learning. This could be seen from teacher ANT1's response: "I have done both ways of teaching- with and without technology. The latter one makes students more interested." However, teachers ANT2 and AET4 expressed their objection by stressing the importance of a combination of different teaching methods as well as a teacher's role in motivating students: "Not all of educational technologies make students more engaged because if they are not interested, they become passively present" (ANT2). Teacher AET1 said that "I feel they are more engaged when there are physical classes. Some tasks require physical movements, such as raise your hand, stand up, show this or that. It depends on the teaching and learning style." Similarly, teacher AET4 said that students "need some more guidance in order to become more engaged. Teachers have to motivate them."

Teachers' Approaches towards Behavioural Intention to Use

Behavioural Intention to Use refers to ESL instructors' intentions to integrate educational technologies in ESL classroom, and this intention is a

result of Perceived Usefulness and Perceived Ease of Use. In this research, the element Behavioural Intention to Use is measured through one item, which is presented in Table 6.

Table 6

The selected TAM item of Behavioural Intention to Use and ESL teachers' responses

TAM Element	Selected Items	Interviewees	
		Intend	Do not intend
Behavioural Intention to Use	I intend to frequently use educational technologies in my ESL classroom.	5 NT 3 ET	3 ET

Source. Own research.

The current small-scale study found that the majority of teachers expressed their willingness and intention to integrate educational technologies in the process of teaching ESL:

- AET1: I feel it's our future. People are getting busier in their lives. I would like to become more comfortable to use educational technologies.
- BNT1: I like to try different techniques and methods.
- AET2: Yes, I intend to use them. I know the benefits of them. I feel that I need to do it.
- BET2: Yes, especially videos. Students can get more when they are exposed to authentic speech.

It was established that three expert teachers expressed their doubts towards continuous integration of educational technologies while teaching ESL. This could be seen from teacher AET4's, BET1's and BET2's responses: "In class- not frequently, I do not intend to do more of what I'm doing. I use educational technologies for listening, showing videos, but during classes I don't think we need to overdo it." Similarly, teacher BET1 pointed out that "maybe only for showing some videos." Interviewee BET2 emphasized the need to assess students' learning style while trying to integrate educational technologies in ESL classroom: "It's the learning style of a student because some students here in Kenya don't even know how to use a computer."

DISCUSSION AND CONCLUSIONS

This small-scale qualitative study explored Kenyan teachers' attitudes towards the acceptance of educational technology integration for teaching ESL in non-formal education and analysed their views through the four constructs of the TAM model: Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioural Intention to Use.

The findings demonstrated that the majority of interviewed ESL teachers perceived educational technology integration in their classroom positively, which supports the findings of many researchers (Bawadi et al., 2022; Dogan & Akbarov, 2016; Palacios Hidalgo et al., 2020; Shah & Empungan, 2015; Shukor, 2015; Undi & Hashim, 2021). However, teachers aged between 51-55, despite the fact that they held more than five years of teaching experience, admitted that it is more difficult for them to learn how to integrate educational technologies in ESL classroom compared to younger generations due to their complexity, additional efforts, and a bigger amount of time required for learning how to use them. According to Sajay Arthanat et al. (2018), the main barriers for using technology for older adults are related with their reluctance, fear, socio-contextual circumstances, and a lack of support that could be overcome with additional training, patience development, the enhancement of teachers' self-confidence, and increasing the understanding of a mutual value. Such findings are consistent with the results of the present research.

This small-scale study also revealed teachers' partially positive perspectives towards Perceived Ease of Use, which refers to the degree to which ESL instructors believe that the process of integrating educational technologies for teaching English would be implemented with a minimum of effort. The majority of novice teachers stated it was easy to use and become skilful with educational technologies, whereas another part of teachers, mainly expert ones, expressed their doubts. This finding is consistent with the findings of Hana Stein et al. (2020) whose research results indicated completely positive novice teachers' attitudes towards technology integration and their openness to digital innovations. The reasons for this situation may be relevant to the teachers' age: novice teachers' age ranged between 26 and 30 years old, whereas expert teachers' age ranged mainly between 51 and 55 years old. Moreover, three expert male teachers stated that they did not have intentions to frequently use educational technologies in their ESL classroom. This is in accord with the research conducted by Charles Buabeng-Andoh (2012) who stressed that personal characteristics, such as age, gender, and experience with using technologies for educational purposes might have influence on teachers' perspectives towards technology integration. Therefore, it is essential to understand these personal characteristics in order to facilitate the process of assisting technology integration for ESL teachers.

The most alarming findings of the present research are that even though all the teachers perceived educational technologies as effective and useful, many of them did not think that they improve students' learning performance and academic productivity. This is in accord with the study of Andrew Zureick et al. (2018) who expressed their negative insights on students' interruptions as a result of video classes. It also supports the results of Nijolė Burkšaitienė et al. (2021) who found that various distractions experienced during online learning can lead to procrastination, which can

further result in unaccomplished tasks. A study conducted by Christopher Drew and Amandeep Mann (2018) who held a negative approach towards mobile learning and treated it as unacademic. Similarly, Xiao-Bin Chen's (2013) research showed that integrating tablet computers in the process of language teaching did not make impact on better students' performance as learners have to gain not only technological, but also methodological insights on technology integration. According to Abbas Pourhosein Gilakjani et al. (2013), efficient teaching cannot be replaced only by technology integration. Thus, it should be borne in mind that educational technology integration alone cannot support the enhancement of students' performance and academic productivity.

The present student identified that Kenyan ESL teachers were aware of and integrated 8 types of educational technologies in their classroom. In order to facilitate the process of gauging trends in educational technologies, Bower and Torrington (2020) compiled the classification of online learning technologies that consists of 226 technologies (40 types, 15 clusters). The findings of the current study suggest that introducing teachers to a wider variety of digital educational technologies can contribute to a more effective and innovative process of teaching and learning ESL.

The current small-scale study contributes to the research in this field as it is one of the first studies in Kenya which focuses on Kenyan ESL teachers' approaches towards the acceptance of educational technology integration for teaching ESL in non-formal education. To a great extent, this research updates the knowledge base of ESL teachers' perspectives towards the acceptance of educational technology, which is helpful for the enhancement of teachers' competences required for technology integration while teaching ESL as well as for a better comprehension of the characteristics that hinder teachers' willingness to adopt technologies in ESL classroom. It also has implications for the practice that is relevant for ESL teachers in non-formal education as well as curriculum organisers.

REFERENCES

- [1] Anumanthan, S., & Hashim, H. (2022) Improving the learning of regular verbs through TikTok among primary school ESL pupils. *Creative Education*, 13, 896-912. <https://doi.org/10.4236/ce.2022.133059>
- [2] Arthanat, S., Vroman, K. G., Lysack, C., & Grizzetti, J. (2018). Multi-stakeholder perspectives on information communication technology training for older adults: Implications for teaching and learning. *Disabil Rehabil Assist Technol.*, 14(5), 453-461. <https://doi.org/10.1080/17483107.2018.1493752>
- [3] Bawadi, H., Rahim, H. A., Moawad, J., Shami, R., Du, X., El-Awaysi, A., Al-Moslih, A. M. I., Diab, M., & Al-Jayyousi, G. D. (2022). Health sciences students' and instructors' perceptions of the emergency switch to virtual internship amid the COVID-19 pandemic: A case from Qatar. *Front. Med.*, 9, 939416. <https://doi.org/10.3389/fmed.2022.939416>
- [4] Buabeng-Andoh, C. (2012). Factors influencing teachers' adoption and integration of information and communication technology into teaching: A review of the literature. *International Journal of Education and Development using Information and Communication Technology*, 8(1),

- 136-155.
- [5] Boonmoh, A., Jumpakate, T., & Karpklon, S. (2021). Teachers' perceptions and experience in using technology for the classroom. *Computer-Assisted Language Learning Electronic Journal (CALL-EJ)*, 22(1), 1-24.
 - [6] Bower, M. & Torrington, J. (2020). *Typology of free Web-based Learning Technologies*. Macquarie University.
 - [7] Burden, P. R. (1982). Developmental supervision: Reducing teacher stress at different career stages. [Unpublished Dissertation]. Kansas State University.
 - [8] Burkšaitienė, N., Lesčinskij, R., Suchanova, J., & Šliogerienė, J. (2021). Self-directedness for sustainable learning in university studies: Lithuanian students' perspective. *Sustainability*, 13, 9467. <https://doi.org/10.3390/su13169467>
 - [9] Chen, X. B. (2013). Tablets for informal language learning: Student usage and attitudes. *Language Learning & Technology*, 17(1), 20-36.
 - [10] Creswell, J. W. & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Sage Publications.
 - [11] Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
 - [12] Dhillon, J. K. & Wanjiru, J. (2013). Challenges and strategies for teachers and learners of English as a second language: The case of an urban primary school in Kenya. *International Journal of English Linguistics*, 3(2), 14-24.
 - [13] Dogan, A. & Akbarov, A. (2016). Teachers' attitudes toward the usage of mobile devices in EFL classroom. *European Journal of Educational Research*, 5(1), 11-17. <https://doi.org/10.12973/eu-jer.5.1.11>
 - [14] Drew, C. & Mann, A. (2018). Unfitting, uncomfortable, unacademic: a sociological reading for an interactive mobile phone app in university lectures. *International Journal of Educational Technology in Higher Education*, 15. <https://doi.org/10.1186/s41239-018-0125-y>
 - [15] Elo, S., & Kyngas, H. (2008). The qualitative content analysis. *Journal of Advanced Nursing*, 62(1), 107-115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
 - [16] Ferreira, C. M. & Serpa, S. (2018). Informed consent in social sciences research: Ethical challenges. *International Journal of Social Science Studies*, 6(5), 13-23.
 - [17] Ghani, M. T. A., Hamzah, M., Ramli, S., Daud, W. A. A. W., Romli, R. R. M., & Mokhtar, N. N. M. (2019). A questionnaire-based approach on technology acceptance model for mobile digital game-based learning. *Journal of Global Business and Social Entrepreneurship*, 5(14), 11-21.
 - [18] Gilakjani, A. P., Leong, L. M., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *I. J. Modern Education and Computer Science*, 4, 49-63. <https://doi.org/10.5815/ijmecs.2013.04.07>
 - [19] Hamidi, F., Meshkat, M., Rezaee, M., & Jafari, M. (2011). Information technology in education. *Procedia Computer Science*, 3, 369-373. <https://doi.org/10.1016/j.procs.2010.12.062>
 - [20] Kadiyala, M., & Crynes, L. B. (2013). A review of literature on effectiveness of use of information technology in education. *The Research Journal for Engineering Education*, 89(2), 177-189. <https://doi.org/10.1002/j.2168-9830.2000.tb00512.x>
 - [21] Kardelis, K. (2017). *Mokslinių tyrimų metodologija ir metodai (edukologija ir kiti socialiniai mokslai)* [Research methodology and methods (education science and other social sciences)]. Textbook. 6th Revised and Augmented Edition. Science and encyclopedia publishing centre.
 - [22] Kelvin, Y. K. W., & Kim Hua, T. (2020). ESL teachers' intention in adopting online educational technologies during COVID-19 pandemic. *Journal of Education and e-Learning Research*, 7(4), 387-394. <https://doi.org/10.20448/journal.509.2020.74.387.394>
 - [23] Koksals, D. (2004). To kill the blackboard? Technology in language teaching and learning. *The Turkish Online Journal of Education Technology*, 3(3), 62-72.
 - [24] Palacios Hidalgo, F. J., Gomez Parra, M. E., & Huertas Abril, C. A. (2020). Digital and media competences: Key competences for EFL teachers. *Teaching English with Technology*, 20(1), 43-59.
 - [25] Pazilah, F. N., Hashim, H., & Yunus, M. Md. (2019). Using technology in ESL Classroom: Highlights and Challenges. *Creative Education*, 10, 3205-3212. <https://doi.org/10.4236/ce.2019.1012244>
 - [26] Ratheeswari, K. (2018). Information communication technology in education. *Journal of Applied and Advanced Research*, 3(1), 45-47. <https://dx.doi.org/10.21839/jaar.2018.v3S1.169>

- [27] Ramsin, A. & Mayall, H. J. (2019). Assessing ESL learners' online learning self-efficacy in Thailand: Are they ready? *Journal of Information Technology Education: Research*, 18, 467-479. <https://doi.org/10.28945/4452>
- [28] Rupšienė, L. (2007). *Kokybinio tyrimo duomenų rinkimo metodologija: metodinė knyga* [Data collection methodology for qualitative research: a methodical book]. Klaipėda University Publishing House.
- [29] Shah, P. M., & Empungan, J. L. (2015). ESL teachers' attitudes towards using ICT in literature lessons. *International Journal of English Language Education*, 3(1), 201-218. <http://doi.org/10.5296/ijele.v3i1.7158>
- [30] Shih, H. P. (2004). Extended technology acceptance model of Internet utilization *behaviour*. *Information & Management*, 41(6), 719-729. <https://doi.org/10.1016/j.im.2003.08.009>
- [31] Shukor, S. S. (2015). ESL students' perceptions on the use of Facebook as a collaborative writing tool in improving writing performance. *The Asian Journal of English Language & Pedagogy*, 3, 205-227.
- [32] Stein, H., Gurevich, I., & Gorev, D. (2020). Integration of technology by novice mathematics teachers – what facilitates such integration and what makes it difficult? *Educ Inf Technol*, 25, 141–161. <https://doi.org/10.1007/s10639-019-09950-y>
- [33] Undi, V. A., & Hashim, H. (2021). The demands of 21st century learning: A study on primary school teachers' attitudes towards using ICT in English as a second language (ESL) classrooms. *Creative Education*, 12, 1666-1678. <http://doi.org/10.4236/ce.2021.127127>
- [34] Yang, H. (2020). *Secondary school students' perspectives of utilizing Tik Tok for English learning in and beyond the EFL classroom*. 3rd International Conference on Education Technology and Social Science, Tianjin, China.
- [35] Zureick, A. H., Burk-Rafel, J., Purkiss, J. A., & Hortsch, M. (2018). The interrupted learner: How distractions during live and video lectures influence learning outcomes. *Anat. Sci. Educ.*, 11, 366-376.