ELEARNING READINESS OF FACILITATORS AND LEARNERS IN ADULT LITERACY PROGRAMMES: A MIXED-METHOD ENQUIRY

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ABSTRACT

Numerous projects and programmes for adult literacy have been undertaken in developing countries in the past years, so it comes as no surprise that the fundamental problems and the global statistics on literacy have not changed even slightly in a country like South Africa. The present study examines the elearning readiness of adult facilitators and learners involved in adult literacy programmes and has these objectives: examine facilitators and learners on the use of technology in the adult literacy programme, investigate the use of technology for elearning in adult literacy programmes, and ascertain the extent to which elearning can motivate learners to learn. The study was underpinned by the Technology Acceptance Model (TAM), whereby a convergent mixed-method approach was adopted in which quantitative and qualitative data were collected simultaneously, analysed separately, and interpreted. Data were collected through questionnaires and semi structured interviews from 120 adult learners that were randomly selected, and ten adult facilitators conveniently selected from the literacy centres in KwaZulu-Natal province of South Africa. The study recommends that adult literacy centres should be equipped with relevant ICT gadgets to enhance adult literacy programmes and all adult literacy education stakeholders should be involved in the implementation process. Additionally, the government should make elearning an area of focus for a future literacy programmes.

Keywords: *elearning, adult literacy, adult education, adult learners, facilitators, mixed-method, readiness.*

INTRODUCTION

Technology facilitates learning at every grade without considering the ages of the learners. The ever growing and emergent roles in the education system across the world of information and communications technologies (ICTs), such as elearning, has increased the expectations and curiosity of teachers who seek to seamlessly integrate technology in the schools for better quality and innovative teaching, learning, and assessment (Sadaf et al., 2013; Saltan and Arslan, 2017). In other words, technology can help to deliver both pedagogical and andragogical content. Mikre (2011) affirmed that the influence of information and communication technologies on education has created a collaborative opportunity for learners and educators at every stage of learning to adapt teaching and learning processes based on individual needs despite physical location and time. Examples of ICTs include web-based, computer-based, and mobile technology; online instruction; or an adult learner surfing the internet for educational

resources. The application of technology to assist in adult education programmes was borne out of the need to meet the challenges of distance learning, but with an insufficient number of trained and qualified teachers (Wagner, 2009). However, several projects and programmes for adult literacy have been undertaken in developing countries through research and practice in the past years, so it comes as no surprise that the fundamental problems, and the global statistics on literacy, have not changed in country like South Africa. Despite these programmes, the integration of elearning into adult literacy programme in South Africa is practically nonexistent (Akintolu, 2019). However, several researchers have established that the link between literacy and elearning is dependent on one another (Adelore 2017; Adelore and Akintolu 2016; Mtega et al., 2012), and is a solid foundation to amplify human development and human skills so the use of technology can build literacy skills. Literacy skills are also important in the development of information literacy in a reciprocal way (Adelore 2017; Wagner 2014). Elearning presumes the ubiquity of, and an establish culture for the use of, various modern electronic technologies to facilitate communication and to share information between lecturers and students.

Over the years South Africa has introduced several initiatives to ameliorate the challenges of illiteracy, among which are the KhariGude—a Venda word meaning "Let Us Read"—and Masfundisani, meaning "Teach Us" (McKay, 2012). However, none of these initiatives have considered the use of technology in its approach. The proliferation of mobile technology was recorded by ICASA and Gilbert (2019) reported that smart phone penetration of the population increased from 43.5% in 2016 to 81.7% in 2018. This shows that the number of adults interacting with mobile technology has increased over the years.

The present study investigated the elearning readiness of adult facilitators and learners involved in adult literacy programme in South Africa. The study aimed at achieving the following objectives: (a) examine facilitators' and learners' perceptions on the use of technology in adult literacy programme, (b) investigate the usefulness of technology for learning in adult literacy programme, and (c) ascertain the kind of elearning that aids the acquisition of basic and functional literacy skill and how it can best be introduced to support and motivate learners to learn.

In this paper, we examine the relevant literature that is of immediate importance to the current study and the theoretical framework that underpinned this study. We further discuss the methodology and research design, highlighting data collection and analysis. Following that, we present the results and discuss of the findings, and limitations of the study, and we make suggestions for further study and recommendations.

LITERATURE REVIEW

According to a document released by UNESCO (UNESCO Institute of Lifelong Learning, 2018), ICT has contributed immensely to the achievement of youth and adult literacy by allowing student learning anytime and anywhere. It also increases employability and effective participation in society.

Wagner (2014) agreed that there are great benefits for using new technologies to deliver literacy education and build a new dimension of what it means to be literate in a world profoundly transformed by technology. In the future, technology could develop and offer new tools to help meet the substantive goals of literacy, educational improvement, poverty reduction, and economic growth. Personal involvement in this technological development cycle begins with literacy. Technology is primarily viewed as a set of delivery and instructional instruments that can be used to assist individuals to acquire the skills and knowledge related to traditional literacy.

UNESCO Institute of Lifelong Learning (2018) reports on several initiatives that have explored the usage of technologies for advancing literacy challenges in countries like Bangladesh, Mexico, Egypt, and Ethiopia, where learning strategies were designed to support nonformal literacy curricula with the use of digital solutions. For instance, in Bangladesh, mobile devices with both audio-visual and text related software were adopted for the literacy programme in rural community learning centres. This helped to improve women's livelihood skills for generating income. Similarly, the women in Egypt engaged in numeracy and literacy through a digital learning platform that was developed to support the curriculum. A model prepared by the United Nations Development Programme (Andreis, 2001) stated that any deliberate attempt

by a country to embrace technology can directly enhance the knowledge-economy development of its citizens. The model also provides an illustration of the relationship between technology, economic development, and skill development.

Furthermore, Wagner (2009) stated that increasing skills capacity will necessarily support the future development and productivity of technological infrastructure. The growing sophistication of the technological infrastructure and the skill base it requires can lead to the creation of new knowledge, innovation, and industries. In the same vain, innovation and new knowledge support economic growth, which in turn, provides the resources needed for human, economic, and technological development and the general welfare of the population. In an experiment carried out by Adelore and Akintolu (2016), they concluded that mobile technology has a positive impact on adult learners' literacy skills.

It is noteworthy, however, that computer-supported lessons and other technology-assisted resources can make education more accessible and improve the ability of adults to decode and comprehend textual content, thus increasing their literacy level and employability and encouraging continuous use of these skills as a lifelong learner (Wagner, 2009). While corroborating this, Wagner (2014) noted that technology can be used to develop literacy and adult education in two interconnected approaches. The first approach is to develop basic literacy skills with the use of technology as a support system. With this approach, computers can be used to deliver textual content instruction on how to read and understand text that will develop cognitive skills. The author further established that basic literacy skills are not only of value but also important as word base examples to learn other essential skills. In the second approach, technology can also be used to effectively support the increasing level of literacy in the society, and distance education for adult learners provides materials and resources that may not otherwise be available.

Scholars like Kinshuk et al. (2003), Adelore and Akintolu (2016), Akintolu et al. (2019), and Adelore and Itasanmi (2016) supported the use of mobile technology to deliver educational content to adult learners anywhere and anytime. While restrictions of time, place, and space have been removed, Wagner (2009) submitted that the use of advance technology also has significant costs with implications for policy decisions.

Mikropoulos and Strouboulis (2004) and Olaniran (2013) stated that although the teaching and learning process can improve as a result of new technology, there are other salient factors that determine the way facilitators will manage their teaching process. Mikropoulos and Strouboulis (2004), however, opined that teaching with technology should involve a pedagogically oriented approach to improve methods of teaching. Similarly, Blanchette and Kanuka (1999) proposed constructivist principles within the context of distance education, with their approach being similar to the design of standalone hypermedia educational software. The authors stated that technologies have removed the barrier for learner interaction and shifted the problem to the implementation of constructivist theories in educational software.

With the dissemination of television and radio, developing countries used these technologies to improve the educational demands of their disadvantaged communities. Looking beyond these traditional technologies, the new technologies are now virtually connecting the classrooms to support distance learning. Technology in education is focused mainly on higher education and on rapidly growing adult education (Askov et al., 2003; King, 2017). Generally speaking, technology has positively motivated both facilitators and learners in the learning environment (Fattah, 2015). This is not a sudden intervention, as the rapid growth in information and communication technologies has played different roles in various sectors, including education (Fattah, 2015). Technology has been found to positively impact both educators and learners particularly in adult literacy programmes (Adelore, 2017; Adelore & Itasanmi, 2016; Fattah, 2015).

However, Wagner (2009) identified that at the strategic level, most of the technological resources are blocked from reaching disadvantaged people while at the professional level, human resources and educator training remain heavily weighted toward the formal education sector, where the majority of the national budget is spent. He concludes urgent attention should be paid to it in order to explore the use of technology to increase the level of literacy, most especially among the people residing in rural areas.

Although several researchers have established

the link between literacy and technology to be mutually dependent (Adelore 2017; Adelore & Akintolu 2016 Mtega et al., 2012; Wagner 2009), literacy and technology are interconnected tools that have much in common since each can amplify human development and skills. The use of technology affects literacy skills, and literacy skills are important in the development of information literacy in a reciprocal way (Adelore 2017; Wagner 2009).

Underscoring the importance of technology in promoting literacy programmes, UNESCO (2006) emphasised the following roles: learning enhancement, local content creation, the ability to create learner-friendly environments, broadened access to literacy education, and professional development of literacy facilitators. This implies that through the adoption of technology, adult literacy programmes can become more practical and interesting, and eliminate all existing barriers associated with the geographical location of learners and even cut down on the cost of education (Adelore 2017; UNESCO 2006).

Johnson and Quan-Baffour (2016) affirmed that the contemporary use of technology for teaching and learning is a phenomenon that cannot be ignored for adult education practitioners and learners. Their study revealed that the most commonly used social networks by adult facilitators and practitioners were mobile phones and email. The respondents of their study believed that if social networks can be used for work-related purposes, they then can serve as a tool for educational purposes to engage in further studies.

THEORETICAL FRAMEWORK

This study was underpinned by the Technology Acceptance Model (TAM) proposed by Davis et al. (1989). TAM refers to an information systems theory that models how users come to accept and use technology. Davis et al. postulated in TAM that a person's intent to use technology (acceptance of technology) and usage behavior of technology (actual use) is predicted by the person's perceptions of the specific technology's usefulness (benefit from using the technology) and ease of use. The study adopted TAM because it relies on the belief that acceptance by the target audience is crucial in any technological initiative. TAM stresses that actual system use is the endpoint where people use the technology. In providing an appropriate perspective for technology acceptance, Louho et al. (2006) described technology acceptance as the way people perceive, adopt, and use technology. Technology acceptance is a necessary requirement for the effective implementation of any Information Technology initiatives (Pinto & Mantel, 1990).

In relation to this study, if adult learners and facilitators perceive benefits in the use of technology in a programme, it will positively influence their acceptance and use of technology. TAM explains technology acceptance and usage from an individual's point of view and not from a societal perspective. The relevance of TAM to this present study resides in the fact that the benefits derived from, and ease of use experienced by an individual when accepting and using technology is based on an individual's perception. This is directly related to our two research objectives: (a) examine facilitators' and learners' perceptions on the use of technology and (b) investigate the usefulness of technology for learning in adult literacy programmes. According to Venkatesh et al. (2004) technology acceptance is largely the initial decision made by the individual to interact with a technology.

METHODOLOGY

Research Design

This present study adopted a mixed methods approach. According to Creswell (2021), mixed methods involve combining or integrating two approaches. In this case the authors combined quantitative and qualitative research data in this study. Qualitative data tend to be open-ended responses without predetermined answers while quantitative data usually include closed-ended responses such as those found in questionnaires or structured instruments. A mixed methods design is one that advances the systematic integration of quantitative and qualitative data within a single study or sustained programme of inquiry. This methodology is based on a premise that permits a more synergetic integration and complete utilisation of information from both quantitative and qualitative data collection and analysis (Creswell, 2014; Kanyane et al., 2017). In this study, the researchers employed a questionnaire to collect quantitative data from the beneficiaries (adult learners) in the selected literacy centres for the study, while an in-depth interview was conducted to collect qualitative data

from the facilitators of the literacy programmes in the selected centers. The reason for using both approaches was to obtain more evidence and make a better argument within a scholarly community.

The study adopted the embedded mixed method design, in which the quantitative and qualitative data were collected simultaneously but analysed separately and not compared because they addressed different research objectives. This type of mixed method approach is used to provide supportive information for the phenomenon under investigation.

Population for the Study

The study sought to investigate the elearning readiness of facilitators and learners in adult literacy programme in South Africa. Hence, the authors clearly describe the population for the study. According to Banerjee and Chaudhury (2010), a population as an entire group from which some information needs to be ascertained. It is also the theoretically specified aggregation of the elements in a study from which a sample is actually selected to develop knowledge (Umar and Usman, 2015). The population of our study were all individuals who served as facilitators to adult learners—these are individuals who are involved in the teaching and learning process among adult learners—and all adult learners in literacy education programmes in KwaZulu-Natal of South Africa.

In South Africa, adult literacy classes are divided into four categories: Adult Basic Education and Training (ABET)—ABET 1, ABET 2, ABET 3, and ABET 4 (Akintolu and Letseka, 2021). For this study, the adult learners selected as participants were those undergoing any of the categories mentioned above that are in KwaZulu-Natal province of South Africa. Facilitators direct the educational activities of adult learners and play a major role in the delivery of andragogical content knowledge for adult learners (Akintolu et al., 2022). The facilitators are also known as lecturers, teachers, educators, or trainers.

Data Collection

The data were collected using a structured questionnaire and in-depth interview. The questionnaire was divided into section A and B. Section A contained the demographic profile of the respondents and section B focused on a set of items that directly addressed the research objectives of the study. In addition, a four-point Likert-scale ranging from *strongly agree* (4) to *strongly disagree* (1) was designed for rating the responses to the questionnaire items. The questions for the in-depth interview were also structured based on the research objectives. A simple random sampling technique was used to select adult learners and convenient random sampling was used to select adult facilitators based on their time, schedule, and interest to participate in the study. The sample size for the study comprised 120 adult learners and 10 adult facilitators, and 12 adult learners and one facilitator were randomly selected from each center in 10 literacy centers. The researchers visited towns and cities in KwaZulu- Natal province where some of the adult literacy centers are located. The in-depth interview was used to collect data from facilitators while the questionnaires were used to elicit data from adult learners. The researchers used an interpreter/research assistant mainly to administer the questionnaires to adult learners and conduct the in-depth interview with the facilitators in English knowing that the facilitators had a proper understanding of the language.

Data Analysis

Data analysis in this study comprised two stages. The first stage was the quantitative data, which came from the structured questionnaire for adult learners, while the second stage was the qualitative data that were derived from in-depth interview conducted with adult facilitators. The quantitative data were analysed using descriptive statistics with simple percentage and frequency counts to address the study objectives. The qualitative data obtained from the interview were analysed

Table 1. Sample Size

	Adult Learners	Total of Adult Learners		Adult Facilitator	Total of Adult Facilitators
Literacy Center	10		Literacy Centers	10	
Adult Learners per center	12		Adult Facilitators per center	1	
		120			10

using the summative content analysis. A summative analysis is used in qualitative research as a collaborative analytic technique that enables researchers to explore the details of textual data (Rapport, 2010). Summative analysis introduces to readers the proper understanding of a text. Summative content analysis involves counting and comparing keywords or content with interpretation of the underlying context (Hsieh & Shannon, 2005).

ETHICAL CONSIDERATION

The researchers obtained permission from the Department of Basic Education and Educational district to conduct the study among the facilitators and adult learners in KwaZulu-Natal province of South Africa. The content of the consent form was explained to each participant by the research assistant and adequate understanding was ensured and each participant completed and signed the consent form. The participants were assured of the confidentiality and anonymity of their profiles and responses. The study adhered to the ethics of research and those of the University Research and Ethics Committee. The ethics certificate number is UZREC 171110-030 PGD 2018/243.

RESULTS

The study results are presented in this section, under the various sub-headings, which are demographic profile and descriptive statistics for quantitative data while demographic profile and summative content analysis for qualitative data.

Quantitative

Demographic Profile

The study sample of this research consisted of 81 female (67.5%) and 39 male (32.5%) adult learners. Most of the adult learners who participated in the study were between 21–30 years old (55.8%), while 27.5% of the participants were 31–40 years old, followed by 13.3% between 41–50 years old. Those between 51–59 years were 3.3% of the participants while there were no participants 60 years and older.

The majority (72.5%) of the adult learners were unemployed, 21.7% were employed. Those who owned personal businesses were classified as self-employed and they constituted 5.0% while pensioners accounted for the remaining 0.8%. The majority of the participants (92, 76.7%) were in Adult Basic Education and Training (ABET 4), the last stage of the basic literacy programme, followed by 27 participants in ABET 1 (22.5%) and one in ABET 2 (0.8%).

Descriptive Statistics

Below are the participants' responses to the questionnaire drawn from the research objectives under study. The analysis of the responses from the administered questionnaire is presented in Tables 2 to 5.

Table 2 shows the distribution of respondents on interest in using technology for learning in literacy class. The information in the table indicates that the majority of the adult learners from the literacy centers were interested in using technology for learning in literacy class as the 22.5% (27) *strongly agreed* and 63.3% (76) *agreed* it will be interesting using technology for learning in literacy class. However, 11.7% (14) *disagreed* and 2.5% (3) *strongly disagreed.*

Table 2. Frequency Distribution of the Respondents on How it can be Interesting Using Technology for Learning in Literacy Class

It will be interesting using technology for learning in literacy class.	Count	Percentages within the respondents
Strongly Agree	27	22.5%
Agree	76	63.3%
Disagree	14	11.7%
Strongly Disagree	3	2.5%
Total	120	100%

Table 3 shows the distribution of respondents who think technology cannot be useful for learning. The analysis from the data shows that the majority of the respondents (53, 44.2%) *disagreed* and 42 (35%) *strongly disagreed*, while 5 (4.2%) *strongly agreed* and 20 (16.7%) *agreed*. The implication of this is that majority of adult learners were ready and willing to adopt elearning into their teaching and learning process.

Table 3. Frequency Distribution of the Respondents on How They Think Technology Cannot Really Be Useful for Learning.

I think technology cannot really be useful for learning.	Count	Percentage within the respondents
Strongly Agree	5	4.2%
Agree	20	16.7%
Disagree	53	44.2%
Strongly Disagree	42	35%
Total	120	100%

Table 4 indicates the responses of participating adult learners on how they may feel indifferent using technology in literacy class. The analysis on the table indicates that 40 (33.3%) of the respondents *disagreed* and 30 (25%) *strongly disagreed* that they will not be indifferent in the use of technology in literacy classes. While 8 (6.7%) *strongly agreed* and 42 (35%) *agreed* with this, that is perhaps because some fell within the older age range.

Table 4. Frequency Distribution of the Respondents on How They Will Feel Indifferent Using Technology in Literacy Class

I will feel indifferent using technology in literacy class.	Count	Percentage within the respondents
Strongly Agree	8	6.7%
Agree	42	35%
Disagree	40	33.3%
Strongly Disagree	30	25%
Total	120	100%

Table 5 shows the responses of adult learners who indicated that using technology will always be very instrumental to achieving success in learning. Most of the respondents (51, 42.5%) *strongly agreed* and 58 (48.3%) *agreed* that using technology will always be very instrumental in achieving success with their learning, while 11 (9.1%) of the respondents *disagreed.*

Table 5. Frequency Distribution of the Respondents on How Using Technology Will Be Very Instrumental to Achieving Success in Learning

Using technology will be very instrumental to achieving success in learning generally.	Count	Percentage within the respondents
Strongly Agree	51	42.5%
Agree	58	48.3%
Disagree	7	5.8%
Strongly Disagree	4	3.3%
Total	120	100%

Qualitative

From the ten adult literacy centers adopted for this study, one adult literacy facilitator was selected for the in-depth interview, making a total number of ten adult facilitators interviewed.

Table 6 shows the characteristics of adult facilitators interviewed in the adult literacy centers selected for this study. The table indicates that one of the facilitators interviewed from the literacy center possessed a doctorate degree, which is the highest academic qualification. Further, one facilitator possessed a Master's in Education degree, five possessed a Bachelor of Education, while the remaining three possessed an Adult Basic Education and Training (ABET) Diploma Certificate. Also, eight of the adult facilitators interviewed were females, while two were males. All the facilitators interviewed have at least t years of experience, which means that the participants interviewed had the necessary experience to address the subject matter appropriately.

Table 6. Demographic Profile of Adult Facilitators Interviewed for the Study

S/N	Gender	Qualification	Years of Experience
Respondent 1	Female	Bachelor in Education	5 Years
Respondent 2	Female	Bachelor in Education	10 Years
Respondent 3	Female	ABET Diploma Certificate	5 Years
Respondent 4	Male	PhD	15 Years
Respondent 5	Female	Bachelor in Education	10 Years
Respondent 6	Female	ABET Diploma Certificate	6 Years
Respondent 7	Female	Bachelor in Education	7 Years
Respondent 8	Male	ABET Diploma Certificate	5 Years
Respondent 9	Female	Bachelor in Education	10 Years
Respondent 10	Female	Master's in Education	15 Years

Summative Content Analysis

The in-depth interview was conducted to ascertain the facilitators' perceptions on the integration of technology into the adult literacy programme and how it can support learners' motivation. As outlined earlier in the Methodology section, the interview provided clarity to the research objectives of the study. The table below connects the research objectives with the interview questions.

DISCUSSION

The previous section presented the results of both the quantitative and qualitative data that was collected from participants (adult learner and facilitators). This current section discussed quantitative and qualitative data that was collected from adult learners and facilitators, i.e., response from questionnaire and interview. Thus, the mixed methods approach, adopting the embedded design with a way of the qualitative approach providing supportive information for the phenomenon under study.

According to the results obtained from the

Table 7. Remarks on the Responses of Adult Facilitators Interviewed for the Study

Facilitators	Remarks
* Of course! Yes, I have seen it in computer studies, I think learners these days learn faster with television and computer, they understand better with them than the other method of teaching. Maybe phones, computers, projectors can be use more often in classes. * Yes, yes. Technology is very important. Without technology in this generation, there's nothing we can do. We use technology because sometimes they research, use internet for researching information. So, technology is very important. Some of them don't have computers, they use their cell phones in researching information. So, if there can be more computers for them, it will be good because technology is important. * Yes, we can. Like the introduction of ICT where they learn with the computer. But they may not learn it at level 4, they only need a background at ABET level 4. It can just serve as a background and prepare them for college. We have not come to that extent. Though some are good with the use of ICT. * Yes, we can introduce it into adult literacy program, but again it will take relearning as most of the learners are mature individuals and they have come from the pen and paper age. And progress in terms of transformation into automation is very, very slow. And many of the learners have attained their physical work by hand. They are not using the office-based choice. So therefore, exposure to technology is limited. So, if we introduce it, we have to introduce prior learning of technology first, at least the basics. But in terms of making them do Mathematics from a technological point of view, it is very strenuous for them. * Yes, we can. It is possible because it can help to explain and display a lot of things to adult learners but we theorise a lot of things. But we are in the rural area, we don't have Wi-Fi and electricity but if it there we can display a lot of things. But we are in the rural area, we don't have Wi-Fi and electricity but if it there we can display a lot of things. Even the word they cannot. They are only relying on the photocopy of the words whereas we can say just download certain application when you get it. It will be very good if it available for us. * Yes, we can integrate technology, though they are not learned. We can integrate the technology, we encourage to use the internet because we give them assignment, and we said they must go to the library. They must google some of the things, I think we can integrate technology. We can use the computer, if we can have some. Because there are learning areas that is ICT, information communication and technology. Some of us cannot offer it because we don't have computer, if we have the computer we can offer that learning areas that will help them to use the computer. And let me say all the new technology. * Yes, that can be very useful as well, because as you know in our days we are living in a digital world, so everything is done digital wise, so it will be very useful to integrate technology into adult learning. It will be very useful, it will help them in their real-life situation when they go out there, when they go to colleges they will find out that they have to access information on the internet and also in the working world they will use these things they need it the most. So, it will be very useful to integrate technology. * Yes, we can. Though we may not teach much things to them, as we have ICT in our center. We teach them how to operate the computer, how to switch on/off the laptop. We are still continuing to teach them on how to print and they go home happy. * Yes, we can integrate technology because they are, though they are not learned. We can integrate the technology, we encourage them to use the internet because we give them assignments, and we said they must go to the library. They must google some of the things, I think we can integrate technology.	All facilitators involved in this study were interviewed and responded to this question on the use of information and communication technology (ICT) in the adult literacy programme. The analysis of the interview responses transcribed established the positive responses of participants on the need to integrate ICT into the adult literacy programme and the significant role it can play in enhancing the teaching and learning process. This corroborates the findings of Adelore and Itasanmi (2016) The participants further identified various technologies that can be used for learning such as computers, mobile phones, projectors, etc. However, it was pointed that most of these can be useful for those in advance literacy classes and those with internet facilities.

demographic profile show that women participated more in the literacy programme. This might mean that women value the literacy programme or they received encouragement to take part in adult literacy programmes in South Africa and, by extension, in Nigeria as well. Similarly, women in Egypt engaged more in the numeracy and literacy digital platform introduced to support the curriculum, which helped to improve the women's livelihood skills for income generating activities (UNESCO Institute of Lifelong Learning, 2018). By implication this shows that females are more interested in acquiring literacy education.

The study shows that the majority (83.3%) of the adult learners who participated in this study were between the ages of 21 and 40 years. This observation is in contradiction to the general belief and anecdotal reports that those with the intention of attending adult classes are the aged. This has been the trend in most Sub-Saharan African countries where adult literacy programmes refer to learning for older adults.

The data analysis as presented in the Results section indicate that a significant number of the learners in the adult literacy programmes were unemployed, which indicates they had no stable income. The analysis of the information in summary revealed that the majority of the participants were unemployed and required necessary employability skills to secure a job.

From the responses it was indicated that learners have opportunity to practice their classes anywhere and when they desire. Learners are scored immediately after they practice any module and receive response or corrections as soon as they access the platform.

In this case the participants believe they will benefit a lot from the use of technology since it is accessible and easy to use, which supports the technology acceptance model of Davis et al. (1989) that underpinned this present study. The present study agrees relatively well with Wagner (2014), that there are great benefits for the use of new technologies for the delivery of literacy education and for a new dimension of what it takes to be literate in a world profoundly transformed by technology.

A prominent finding from this study is that adult learners and facilitators have shown the need for elearning integration and its usefulness for learning in adult literacy programmes. Several studies (Adelore & Akintolu, 2016; Akintolu & Uleanya, 2021; Akintolu et al., 2019; Mikre 2011; Sadaf, 2013; Saltan & Arslan, 2017) have alluded to that the need for integration of technology into adult literacy programmes to adapt teaching and learning based on individual needs without considering physical location or time of day. The kinds of technology identified include web based, mobile technology; the use of the internet; computer-based, technological delivery methods; and online instruction and application. However, this study highlighted different kind of technology that can aid the acquisition of basic and functional literacy skills and how it can be introduced to support learners' motivation. The study presented the outcome of the responses to the interviews conducted by the participating facilitators in which the following technologies were highlighted: television, mobile phones, computers, projectors, applications for teaching, and the use of internet. Furthermore, the facilitators were very positive about the use of technology in adult literacy programmes. However, some of the facilitators highlighted some challenges that may hinder the realisation of the digital intervention, such as electricity failure, a lack of computers at literacy centres, the age of students, and adult learners being digital migrants. This reflects the constraints identified by several authors (Adelore & Akintolu, 2016; Akintolu et al., 2019), and other issues such as technical know-how among facilitators and a lack of resources to support the adult literacy programmes, most especially among countries in developing world.

Among the plausible explanations for these findings is that technology will positively motivate both the facilitators and learners in a learning environment (Fattah, 2015). This is not a sudden intervention, as the rapid growth in information and communication technologies has played different roles in various sectors, including education (Fattah, 2015). Technology has positively impacted both the educators and learners in adult literacy programmes (Adelore, 2017; Adelore & Itasanmi, 2016; Fattah, 2015).

LIMITATIONS AND SUGGESTIONS FOR FURTHER STUDY

This study was conducted in one province of South Africa; therefore, the findings may not generalize to other provinces in the country. However, the province we selected for this study is one of the

most affected provinces in the country in terms of having a high level of illiteracy. Also, due to the size of the province selected for the study, the adult learners and facilitators who were randomly and conveniently selected may not represent the general opinion of others in the province. However, the researchers were careful that the participants represent different districts of the province and had a significant amount of experience. Future research should therefore concentrate on investigating a broader number of participants extending to more provinces so the findings may be more reliable for a technological intervention into adult literacy programmes.

RECOMMENDATIONS AND CONCLUSION

The findings provide the following recommendations:

- Create a national programme that would involve adult learners using technology to learn.
- Increase government support for adult literacy programmes.
- Encourage collaborative efforts across several government agencies such as the Department of Information Communication Technology and the Department of Adult Education.
- Involve other stakeholders such as local and international nongovernment organisations and government agencies to fund such initiatives.
- Engage with other Africa countries in such initiatives to achieve sustainable development goals as a continent and meet the demands of the 21st century.
- Motivate researchers to extensively respond to the growing need of a body of research in this area, especially in developing platforms that use technology for improving knowledge delivery to adult learners.

In conclusion this paper established that technology can be used as a teaching and learning tool and can effectively help adult learners by responding to their needs and in turn increase the adult literacy rate. Additionally, we believe as the researchers that there is a need to fully integrate technology into Adult Literacy Programmes in South Africa, as this may help in achieving the Sustainable Development Goal 4 and meet the demands of the 21st century.

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