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Bridging the Skills Gap: Integrating Mobile Learning in Adult Basic Education and Training for Enhanced Employability in South Africa

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Abstract. South Africa experiences high levels of unemployment, perpetuate, among other reasons, by a lack of skills development and training for adult learners in the Adult Basic Education and Training (ABET) sector. To alleviate poverty and unemployment, adult learners need skills development and training to use mobile devices to learn conveniently. Mobile learning (m-learning) is a form of distance learning and a subset of e-learning and flexible learning. It has significance for the development of individual adult learners and countries. Consequently, this study aimed to explore the effectiveness of skills development for adult learners in the ABET sector in South Africa and was supported by the theoretical framework of andragogy. It also used the constructivist paradigm, followed by the qualitative research approach. Data collection methods included focus-group interviews. The research findings indicate that skills development and training are desired in the ABET sector and that m-learning could be used as an alternative approach to teaching and learning for adult learners. Based on the findings, the authors recommend integrating practical skills development into ABET programmes and expanding mobile learning initiatives for effective mobile learning.

Keywords: Skills development; adult learner; andragogy; mobile learning; ABET; employability

1. Introduction

For years, individuals who have had access to and completed their high school education have generally experienced a higher quality of life than those who have not. Further education has empowered people to gain additional knowledge, skills, values and attitudes. In this regard, the role of education is to empower people. According to the United Nations (2012), empowerment enables people to increase control over their lives, shape their lives and gain voice and control. With high levels of unemployment in South Africa today, individual adults seeking

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employment can prepare for that by embarking on skills development that would increase their chances of employability or starting businesses. The research question then is: *How can the integration of mobile learning in Adult Basic Education and Training (ABET) programmes effectively enhance the employability of adult learners*? Even those who have employment could learn new skills to help them remain relevant and employable. Accessing and acquiring education is still relevant to enable individuals, including rural adults, to develop the needed skills and knowledge to make a living. Education is crucial because it can address the pitfalls of ignorance and be a tool for positive change (Masinga & Bhat, 2021).

The primary method for obtaining certain educational qualifications in South Africa is attending traditional contact classes as children. However, challenges in attaining education in South Africa persist, with a growing percentage of functionally illiterate adults in the 20-39 age groups (HSRC, 2017). To mitigate the challenge of accessing education and learning different skills, especially for adults in South Africa, alternative ways such as using mobile devices in teaching and learning could be helpful.

2. Literature Review

Adult education in South Africa is provided at ABET centres, and adult education is meant for adults who learn voluntarily and in their own time.

South Africa added the letter "T" for Training to ABE, which stands for Adult Basic Education, to meet this need. Rule (2006) states that the letter "T" for training links education and training in the context of policy emphasis, whereas ABE refers to constitutional rights. ABE is commonly used in many countries, whereas ABET is preferred in South Africa (Parliamentary Monitoring Group, 2002). ABET had to address the following two concerns:

> *The first one is that business and labour unions were concerned about the impact of education and its low application in work and life. At the same time, training meant drilling in routine jobs without looking at the underlying values and knowledge. Adding the "T" to ABE indicated a commitment to integrating education and training into ABET.*
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> *The second one is that ABET was born from adult literacy work, and literacy alone was not seen as adequate to support real social transformation. Therefore, ABET was meant to offer general education (ABET, 2022).*

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Yet, including the training facet does not address the skills development issue. Adult education provision in South Africa is mainly associated with adult literacy programmes, such as learning how to read and write for a set duration rather than lifelong learning (McKay, 2012). Aitchison and Alidou (2009) substantiate this statement when they state that the delivery of adult education in the Sub-Saharan region of Africa is predominantly about reading and writing, with some basic literacy programmes that are not likely to guide adult learners into other learning channels. Generally, the ABET sector offers education to adult learners who experience and refer to it as theory and knowledge, which has little application in work and life and does not focus on training and skills development. According

to McKay (2012), the ABET system's attracts adults who want to gain labour market and livelihood skills, but the system does not offer these educational options. The ABET sector is unable to produce an adequate number of adult learners who are skilled, knowledgeable, and competent to engage and participate in the country's social, political and economic spheres. Lack of skills development in the ABET sector, according to Schrader-King (2023), reflects skills gaps and constraints in accessing jobs and enriching economic growth for the green and digital economy. It is also clear from the fact that the unemployment rate in South Africa is among the highest in the world. According to Karombo (2021), in 2021, 7.8 million, i.e., 34.4% of South Africans, were unemployed. In South Africa, youth are those between the ages of 15 and 35, and the burden of unemployment is most critical among the youth where the unemployment rate is 59.5%, irrespective of their educational level. This is not a problem unique to South Africa, as many countries continue to struggle to deliver on the promise of skills development (Schrader-King, 2023).

Adults who most need education are those who are illiterate and can scarcely write their names and addresses and are those with inadequate formal education (Parliamentary Monitoring Group, 2002). These adults in need of knowledge, skills and self-development tend to be older and reside in rural areas. UNESCO (2020) posits that refugees and migrants, rural adults, adults with disabilities, older adults and some with low prior educational attainments face obstacles in participating in adult learning and education. In today's challenging economic world, with few job opportunities coupled with a rapid technological change impacting different sectors, skills development, especially Fourth Industrial Revolution (4IR) skills and training, is needed by adults.

A skill is a learned ability that enables an individual to generate predetermined results and does it consistently and coherently (Kapur, 2018). According to Schrader-King (2023), a comprehensive skill set is needed for one to succeed in the twenty-first-century labour market, and includes digital skills, which include the ability to understand, access and integrate information appropriately and safely; specialised skills, which include the acquired expertise to perform a specific task; socio-emotional skills which include the ability to manage attitudes, emotions and relationships; and foundational and higher order skills which are cognitive abilities to understand complex ideas and find solutions to problems.

It is essential for adult learners to engage in skills development programs to boost their own labour productivity and employability, while also helping their country become more competitive. Adult education provision in South Africa needs to prepare learners for future opportunities through skills development programmes.

Adult learners in South Africa need skills development programmes. According to South Africa's National Skills Development Plan 2030 (National Planning Commission, 2011), the ABET sector has a role in expanding skills development in the country to many youths, unemployed people, those employed in low and semi-skilled occupations and adults needing knowledge and skills. Skills development must be identified and facilitated to support human development by strengthening skill sets and career transitions, especially for vulnerable people

such as job seekers, youth from disadvantaged backgrounds and workers in jobs at risk of disappearing (OECD, 2024). Skills development programmes could be offered in flexible and convenient ways to maximise opportunities for adult learners to receive knowledge and skills. In this way, Schrader-King (2023) posits that the dynamic landscape of the modern global labour market requires workforce development and education systems to become more personalised and accessible for hybrid and remote learning. In this regard, hybrid and remote learning is possible with the integration of mobile devices, namely, mobile learning. Through mobile learning, adult learners can access information where and when needed. Accessing information anywhere at any time can increase chances for adult learners to receive knowledge and skills for their livelihoods.

3. Theoretical Framework

A theoretical framework consists of one or more theories and concepts that are logically connected and relate to the study to provide the grounding of the research (Varpio et al., 2019). Theoretical frameworks offer credibility, deepen the essence and guide the path of a piece of research. In this regard, the theory of andragogy focuses on the learning experience of adults; learning is self-directed, and adult learners must commit and be motivated to learn (Kaur, 2016). A theory is "an organised body of concepts and principles intended to explain a particular phenomenon" (Leedy & Ormrod, 2005:4). The study focused on exploring the phenomenon of the development of skills for adult learners in the ABET sector, and the theory of andragogy was found suitable to support it. Andragogy is based on the idea that adult learners can manage their own learning process. It also outlines a practical and theoretical approach to learning that is self-directed and autonomous with teachers acting as facilitators. Andragogy enables adult learners to build knowledge and independently engage in teaching and learning.

Andragogy

Malcolm Knowles popularised andragogy as a method, practice and approach adult learners can use in their education. He argued that andragogy is different to pedagogy: "Andragogy is the art and science of helping adults learn and pedagogy is the art and science of teaching children" (Knowles, 1980:43). In the pedagogical world, a learner is dependent on a teacher, whereas in the world of andragogy, a learner is not dependent on a teacher but on oneself. Andragogy shows the "individual freedom, the relationship between individual and society, and the aims of adult education" (Pratt, 1993:15).

The characteristics of this theory are embedded in the principles or assumptions that apply to adult education. The following assumptions define andragogy: adults are responsible and self-manage their learning and what they need to know. Additionally, their life experiences influence their learning process, and solutions to problems are needed to empower adult learners (Chametzky, 2014; Rodrigues, 2012).

The principles listed above mean that adult learning is self-directed because they come to the learning process by themselves; they are not forced and come on their own terms and conditions. They come with an idea of what they want to learn, which means they know what skills and knowledge they want to acquire and for what reasons they want to acquire such. Halupa (2015) asserts that andragogy has

links to Maria Montessori's constructivist theories that were built on three postulations of being a student working the curriculum rather than with the direct instruction, student choice and learning time of interrupted blocks. Halupa's assertion supports Knowles's phrase of "self-direction" in his andragogy theory in the sense that adult learners' learning experiences are driven by what they have experienced in life. In other words, this is to say that adult learners come to the learning experience with their past experiences of interacting with others and the environment. Their approach to the learning experience is shaped by constructivist and connectivist principles. Bell (2009) stipulates that connectivism is a learning theory that emphasises the importance of networks and connections, both social and technological, in acquiring and applying knowledge. Constructivism and connectivism are related to andragogy and position adult learners as individuals who come to the learning process knowingly and willingly to connect, construct and gain knowledge and skills. In constructivism, the learning process is only guided by a teacher acting as a facilitator, while in connectivism, the learning process of the network of information is guided by a teacher acting as a connector.

4. Research Methodology

According to O'Leary (2004), the word methodology is linked to a particular set of paradigmatic assumptions used to conduct research. This study's methodology includes the research design and methods. Under the research design, the constructivist research paradigm and approach were used which led to the qualitative approach. This study sought to explore the effectiveness of skills development for adult learners in the ABET sector in South Africa, with a focus on increasing knowledge and skills learning.

Under the research methods, we used population sampling, instrumentation for data collection and data analysis and interpretation techniques. The study investigated how skills development can benefit adult learners. To comprehend the phenomenon under investigation, we used a purposive sampling strategy to select specific individuals from the population. We chose this method because we wanted to specifically select well-informed and knowledgeable participants who could offer valuable information about the studied phenomenon. Purposive sampling is a non-probability technique that researchers can use to select a sample of units or subjects from a population (Etikan, 2016). Additionally, it should also help identify the possible likely scenarios or trends (Kira, 2014). Participants were selected to provide information based on their experiences. These participants were 20 adult learners studying at four different ABET centres in South Africa. The ABET centres, two from the Northwest province and two from Gauteng province were selected because they provide education specifically to adult learners and were also selected for their accessibility to the researchers. Five learner participants from each of the four centres were selected.

Data collection is the process of collecting and measuring information in a systematic way that affords an individual the opportunity to answer research questions and evaluate outcomes (Ori, 2021). Four focus-group interviews consisted of five participants in each group at each of the four ABET centres. The focus-group interview allowed the researcher to interviews adult learner

participants about skills development and their face-to-face learning experiences. Interviewing adult learner participants allowed the researchers to explore whether adult learners were incorporating any form of technology in teaching and learning, particularly using their mobile devices, and to ascertain their skills in doing so.

In order to answer the research question and reach certain conclusions, the data was analysed and interpreted. Thematic analysis was used from the interviews recorded on a digital recorder. Thematic analysis organises, identifies, and offers insights relating to themes or patterns of meaning in a dataset (Braun & Clarke, 2012). This was all about transcribing participants' views and experiences. Braun and Clarke (2012) outline six steps in thematic analysis: familiarising yourself with data; generating first codes; searching for themes; reviewing potential themes; explaining and naming themes; and formulating the report.

Trustworthiness was considered. Trustworthiness aspects include credibility, transferability, dependability and confirmability of the research study (Lincoln & Guba, 1985) and are distinct from a quantitative research study. To ensure credibility in this study, the researcher collected data from different participants who participated in the focus-group interviews. In this manner, all interviews were recorded, allowing anyone, including participants, to crosscheck, validate and confirm information. These qualitative validating approaches or credibility measures were adopted to ensure trustworthiness in this qualitative study.

This study also considered ethical issues. Ethical considerations in a study involve human treatment confidentiality and norms and values that must be upheld. The study, therefore, showed respect to human participants, fairness in the procedures and honesty in reporting the research processes, such as data and results. Permission was granted by the principals at the ABET centres to conduct the research.

5. Findings and Discussion

The data analysis section explored the experiences of learner participants. First, the biographical profiles of participants are presented in Table 1.

Table 1: Profiles of adult learners

Province	ABET centre	Focus-Group	Participants	ABET Level of learning	Age
North West (NW)	A (Public centre)	FG1	Participant 1	Level 4	21
			Participant 2	Level 4	18
			Participant 3	Level 4	18
			Participant 4	Level 4	22
			Participant 5	Level 4	20
Gauteng (GP)	B (Public centre)	FG2	Participant 6	Level 4	32
			Participant 7	Level 4	21
			Participant 8	Level 4	24
			Participant 9	Level 4	20
			Participant 10	Level 4	19

Gauteng (GP)	C (Public centre)	FG3	Participant 11	Level 4	19
			Participant 12	Level 4	39
			Participant 13	Level 4	24
			Participant 14	Level 4	24
			Participant 15	Level 4	63
North West (NW)	D (Public centre)	FG4	Participant 16	Level 4	42
			Participant 17	Level 4	19
			Participant 18	Level 4	18
			Participant 19	Level 4	22
			Participant 20	Level 4	41

The identities of the learners who took part in the focus-group interviews were kept confidential by using codes instead of their names. This approach was taken to ensure alignment with research ethics. Additionally, biographical details such as race, gender, and whether the ABET centre was public or private were deemed unnecessary and had no impact on the research findings. This study aimed to explore types of skills development for adult learners in the ABET sector in South Africa when using mobile devices. In their responses, adult learner participants could talk about their experiences of skills development and face-to-face learning and mobile technologies.

Themes from the Focus-Group Interviews

In general, teaching and learning involve both learners and their teachers. In this regard, it was essential to involve adult learner participants because they would shed light on the phenomenon under investigation and answer the question: *How can the integration of mobile learning in Adult Basic Education and Training programmes effectively enhance the employability of adult learners?* Three themes emerged and are tabulated below under the identifiable knowledge and skills that adult learners need.

Table 2: Research themes

Themes	
1	Knowledge and skills needed by adult learners for their livelihood.
2	Knowledge and skills needed by adult learners to use mobile phones.
3	Knowledge and skills needed by adult learners to learn when using mobile devices and technologies.

Identifiable knowledge and skills that adult learners need

Skills are achievements acquired through training or practice (Irvine, 1997), and the process of teaching and learning can be said to be complete when teachers can teach learners and when learners can demonstrate knowledge and skills being taught to them. Looking at the possibilities of m-learning for adult learners in the ABET sector pinpoints not only knowledge that adult learners need but also different skills that adult learners need for their livelihood and advancement. In this regard, three themes emerged: knowledge and skills needed by adult learners for their livelihood; knowledge and skills needed by adult learners to use their mobile phones; and knowledge and skills needed by adult learners to learn through mobile devices. These themes are discussed below.

Theme 1: Knowledge and skills needed by adult learners for their livelihood
The knowledge and skills adult learners needed were directly linked to their own survival and their families. For this reason, the lack of skills development in the ABET sector reflects skills gaps and constraints in accessing employment. In this theme, the findings indicated that almost all groups expected to receive knowledge and skills from their adult learning process, hoping to find work afterwards. Participant 1 (FG1), when coming to do ABET Level 4, hoped that it would include the learning of bricklaying skills as this participant had done this kind work before. In other words, this participant hoped that he would upskill himself in that way. Participant 4 from the same group shared the same sentiment and mentioned that:

> *"When I came here, I wasn't interested in doing the levels or subjects being offered here. I wanted to learn the skill of baking because learning how to bake was going to help me bake different things and sell them."*

This participant further stated that learning skills were essential as they would make it easier for them to find employment.

All participants in FG 1 expressed interest in learning various skills such as computer programming, bricklaying, baking, sewing, carpentry and cooking. ABET (2024) indicated that today's economic world is challenging with job opportunities and rapid technological change. Therefore, skills development, including 4IR skills and training, were needed among adults. In the same way, data collected from adult learner participants indicated that all FG 1 participants preferred to learn skills but did not mind learning subjects on a theoretical basis. They clarified that it would be better for them to do their ABET Level 4, including learning skills. "*It was going to be nice to learn about different skills after our normal classes*," said Participant 4.

ABET Level 4 training had six subjects that adult learners had to do and pass to obtain their ABET Level 4 certificates. Examples of the subjects are two languages, English and Setswana, and the other four subjects can be selected from subjects such as Ancillary Healthcare, Mathematics Literacy, Life Orientation and Agriculture. Participant 6 of FG 2 mentioned that on ABET Level 4, there are different streams, such as the commerce or science stream. It can be argued that at ABET Level 4, adult learners only gain knowledge, not skills, because teaching and learning focus on theory and not on practical skills development. The above links to andragogy, as adult learners come voluntarily to the learning situation to acquire knowledge. Conversely, although these adult learners appreciated that they learned something, they wished their learning was structured to include the necessary skills.

At Centre A, certain skills development programmes were offered independently from the ABET Level 4 learning programme. When participants were questioned about why they did not immediately learn different skills instead of pursuing the theoretical learning in ABET Level 4, Participants 1 and 4 explained that it was important for them to complete ABET Level 4. They believed that successfully finishing this programme would enable them to move on to Matric/Grade 12. The National Senior Certificate (NSC) examination, commonly referred to as "matric", is an annual event of major public significance as it signifies the culmination of

twelve years of formal schooling (Department of Basic Education [DBE], 2021). Completing Matric and receiving a Matric certificate marked the end of schooling years and offered hope for employment or further studies at tertiary institutions. This statement was supported by statements from FG 2 participants that their reasons for studying at the ABET centre were that they were older and no longer eligible for mainstream schools. They indicated that they desired to obtain a Matric certificate to find employment afterwards.

From the comments of Participants 2 and 3 of FG 1, it became clear that adult learners embarked on the learning process because they wanted to survive in life. After sitting at home without a job, Participant 3 decided to come to the ABET centre to learn because he wanted to succeed in life and own cars and houses. All participants from FG 1 added that they could even start their own businesses with learning.

All participants from all focus groups stated that one Ancillary Healthcare subject, had the needed practical and theoretical aspects. They stated that the subjects of ABET Level 4 made it possible for others to secure jobs for themselves. They explained that the Ancillary Healthcare subjects were Biology, Life Sciences and Life Orientation. Participant 6 of FG 2 stated, "*With Ancillary Healthcare, learners notice that everyday life is Ancillary Healthcare; for example, some learners had a chance to go to the career expo and discovered that there were job opportunities for those who had done Ancillary Healthcare Level 4*". Participant 13 of FG 3 supported the statement by indicating that with Ancillary Healthcare, people could secure jobs for themselves, such as porter, paramedic or assistant nurse. According to this participant, Ancillary Healthcare helped them learn practical ways to put drips on patients, do first aid in emergencies, and position and load patients into an ambulance or wheelchair. The supporting statement from Participants 16 and 19 of FG 4 was that in Ancillary Healthcare, they were taught how to care for patients, provide first aid and administer pills for those who are sick. "*In Ancillary Healthcare, we role play as health-care workers treating patients. We learn how to do first aid on patients or put bandages on them, all depending on what needs to be done*," said Participant 19.

The researcher picked up mixed messages from the participants regarding their learning of ABET Level 4. Many participants indicated they were happy with their ABET Level 4 as they were learning a lot, especially from subjects like Ancillary Healthcare, Agriculture, Economic and Management Sciences and Maths Literacy. "*With ABET Level 4, I can go and look for work or start a poultry business*," said Participant 2. Participant 3 had the same sentiment as Participant 2 that on ABET Level 4, they learned a lot and that there was no need for them to pursue Grade 12 upon completing ABET Level 4. Contrary to Participants 2 and 3, participants indicated that with ABET Level 4, they stood a chance to do Matric, start their own businesses or be employed primarily in the public sectors of health or defence as soldiers. Participants 14 and 15 of FG 3 stated that with ABET Level 4, they could secure jobs as soldiers or work at hospitals. In supporting the statement, Participant 5 further stated that he knew of his neighbour who had done ABET Level 4 and was then working as a soldier. In addition, "I *know of someone who was doing ABET Level 4 here and is now working in town sewing clothes for children, and the other one runs a bakery business*," said Participant 20 of FG 4.

Conversely, five participants indicated that ABET Level 4 was not sufficient for them as they still needed to do Matric. They confirmed that most companies prefer to employ candidates with a Matric certificate. "I think ABET Level 4 is not good enough for us", stated by Participant 7 of FG 2. Participant 1 of FG 1 said, "*ABET Level 4 won't help – mostly, a Grade 12 certificate is needed. My plan is to do Grade 12 after this level*". Like this participant, Participant 16 of FG 4 stated that the Matric certificate was needed for those looking for jobs and that it is disappointing when one does not have it. This Participant continued to say: "*Also, it depends on the job advertisement – for example, if it wants a person with either a Matric certificate or a ABET Level 4 certificate*".

Theme 2: Knowledge and skills needed by adult learners to use mobile phones

Mobile phone ownership is prevalent in the Sub-Saharan region. This fact is supported by the observation that every adult learner participant owned a mobile phone. The only exception was one adult learner from FG1, who mentioned that their mobile phone differed from the others, as it was an old-style phone, not a smartphone.

Schrader-King (2023) indicated that the Fourth Industrial Revolution (4IR) skills, including skills on how to use mobile devices for learning, were needed by adults. In this study, one adult learner participant indicated being unsure of how to use specific applications on his phone. In contrast, the others had knowledge and skills on using their devices in their everyday lives. Participant 16 of FG 4 said:

> "*I use my phone and Google to research different things, such as information about different recipes, because I like to cook different things. When my child is sick, I also use my phone to search for information about different concoctions I can give him*".

Responses from FG 4 Participant 16, like Participant 20, indicated her position as a mother who shared her mobile phone with her child. Participant 16 said: "I *have downloaded cartoons on my phone for my child to watch*". Participant 20 added that she also used her phone for personal things. Participant 10 of FG 2 stated that he used his phone to make and receive calls and text messages. The adult learner participants' responses clearly indicated that they had knowledge and skills at a certain level in using their mobile phones.

Theme 3: Knowledge and skills needed by adult learners to learn when using mobile devices and technologies

The previous sub-theme showed that adult learners possessed the general skills and knowledge to use their mobile phones daily. However, they were unaware that their phone usage skills and knowledge could be connected to learning. In this regard, adult learners realised that they had been engaging in mobile learning by using mobile phone applications to access information and learn. For example, Participant 5 of FG 1 stated that their Ancillary Healthcare Healthcare subject required them to use Google for more information. They did that via mobile phones. Accessing online information was an advantage. "*We used Google to search for information about different terms such as meaning of cataract or symptoms of different diseases*", said Participant 4. The capabilities of their mobile phones enabled them to connect to the networks or the internet and search for information, which, in actual terms, is supported by technology. According to Jack and Higgins (2018),

learning supported by technology or educational technology includes many different digital technologies such as computers, interactive whiteboards, tablets and others designed to support teaching and learning.

FG group participants faced various challenges, including handling heavy study workloads and juggling other responsibilities, resulting in late assignment submissions. Some adult learner participants mentioned that they had children and life partners to care for, and therefore needed more time. They said it was difficult to come to the ABET centre every day. Attending classes daily was challenging for adult learners, leading to some dropping out. The following statement describes the reasons why some students end up quitting their studies:

> *"It is tiring to come here every day. I am also getting tired. If you check my attendance register, you will notice that I was attending well at the beginning of the year, but now I don't. Imagine every day from 8am till 2pm. Shame, I don't blame those dropping out,"* said Participant 6.

Financial constraints were a challenge for some, as they had to commute from home to work, then to the ABET centre, and back home. This posed a financial challenge and resulted in additional time spent on travelling. Sixteen adult learner participants voiced their preferences for using their mobile devices and technologies to learn because they used mobile phones daily, knew how to use them, and believed that m-learning could help them to learn. They voiced their preferences for adopting m-learning, which would help them not to come to the ABET centre daily as some of the schoolwork and its submissions could be made using mobile devices from home. Participant 16 of FG 4 said:

> *Writing notes is tiring; we even use our cell phones to take pictures of notes written on the board. I prefer m-learning to come as it will sort out our issues. A lot of things can be done, such as doing schoolwork at home and submitting online.*

Participant 1 added, "*Just look at our books; we carry many books to come to school and with m-learning, we will be just using apps*". The above-mentioned utterances from participants indicated their desire for the use of mobile devices in teaching and learning, and in support of this McKay (2012) also indicated that the provision of adult education is done predominantly face-to-face at the ABET centres.

In contrast, some participants from FG 2 had different perspectives on m-learning despite possessing the knowledge and skills to use and operate their mobile phones. As an example, Participant 6 said,

> *I do not want school-related work on my phone. At 2 p.m. when school is out, I go home and want nothing to do with schoolwork. Mobile learning or distance learning would not work for me…no thanks. Should it be adopted here, I'd go to another school. I want to use my phone to listen to music, chat, make phone calls, but not for schooling.*

In supporting Participant 6, Participant 7 said she could only do m-learning when given the "necessary tools" such as smartphones, data, a tablet or a computer. Additionally, Participant 8 contributed to the conversation by mentioning other issues related to m-learning, such as the risk of losing a phone. Participant 6 in FG 2 expressed opposition to m-learning and stated,

> *Currently, I am struggling with my schoolwork, especially when I have to go home and prepare for a test. Then what about m-learning? I want to see my teacher in front of me face-to-face, and in that way, I can understand. I have realised that people who do mobile or online learning are copying one another's work. That means that they do not understand. I know of students studying at a distance-learning university of South Africa, helping each other when doing assignments. They copy one another's work. They do not see their lecturers, so they teach themselves and do not understand what they are doing. I don't want that. I want to see my teacher in front of me, face-to-face".*

The comments from FG 2 participants above indicated that these adult learner participants had the knowledge and skills to use their mobile phones. They possessed mobile devices with access to associated applications, and to some extent, they had been engaging in mobile learning unconsciously. For instance, they had been using their mobile devices to Google and search for information during their learning process. Even the few who did not prefer m-learning owned mobile devices and had the knowledge and skills to use them. The literature reviewed and data gathered from participants indicated existing gaps in learning for adult learners. These existing gaps showed that technology did not support adult learning for 4IR skills development. Therefore, this study revealed that adult learners needed to develop learning skills while using mobile devices.

Based on the findings, this study recommends the following:

- **The integration of practical skills development into ABET programmes.** To address the gap between theoretical knowledge and practical skills, it is recommended that the ABET curriculum be revised to include more hands-on, skills-based training that aligns with the demands of the current job market.
- **The expansion of mobile learning initiatives.** Given the widespread ownership and use of mobile devices among adult learners, the ABET sector should adopt mobile learning as a complementary method to traditional classroom teaching. This initiative should include providing resources, such as access to smartphones, data and training on using mobile applications for educational purposes. Mobile learning can provide flexibility for adult learners who face barriers to attending classes regularly, enabling them to continue their education and develop necessary skills remotely.

6. Conclusion

This study explored how the integration of mobile learning in ABET programmes could enhance the employability of adult learners. The current ABET curriculum focuses heavily on theoretical knowledge, with limited opportunities for hands-on skills training, despite adult learners' interest in practical skills directly contributing to their livelihoods. The misalignment between adult learners' needs and educational offerings highlights a significant gap in the system, perpetuating unemployment issues, especially in a country with one of the highest global unemployment rates. The research also highlighted the potential of mobile learning as a flexible and accessible alternative to traditional face-to-face education, especially for adult learners who face various socio-economic barriers. Although there is a clear interest and familiarity with mobile devices among the

participants, there remains a need for structured support and resources to fully use these technologies for educational purposes. The findings suggest that adult learners are already using mobile devices for information access, albeit informally. However, the study also revealed mixed reactions to mobile learning, with some participants expressing concerns about the loss of face-to-face interaction and the potential for increased academic dishonesty. These concerns must be addressed through thoughtful implementation strategies. Providing adequate resources, such as smartphones, data and training on using mobile learning applications, is essential to ensure the success of this approach. Integrating mobile learning into the ABET sector promises a shift towards a more flexible and skills-oriented approach to adult education. This is not only a response to the current challenges but also a proactive step towards ensuring that adult learners are prepared for the demands of the Fourth Industrial Revolution and beyond. Lastly, this study included a limited number of adult learner participants, and the results cannot be generalised. Another limitation is that this study was only done at the public ABET centres, and private ABET centres were not included. These limitations offer an opportunity for further research. However, despite these limitations, it is believed that the research processes adhered to ethical principles and that the research findings have value for the ABET sector and similar contexts. In embracing mobile learning and practical skills development, South Africa's ABET sector has the potential to transform individual lives and ignite a broader socio-economic change, empowering adults to shape their futures with knowledge, resilience and purpose.

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