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Prepared to Teach Using Technology, but Not Prepared to Teach Online: A Case of Early Childhood Pre-service Teachers in the United Arab Emirates

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Abstract

The global pandemic of COVID-19 has affected teacher training institutions across the globe and many of the pre-service teachers had to complete their field experiences online. The purpose of this article is to explore pre-service teachers' preparedness to teach online, in the early childhood phase using technology. This paper is guided by two critical questions which focused on pre-service teachers' experiences of conducting their field experience online and preparedness to teach young children using technology. Social Learning Theory was adopted as the theoretical framework for conducting the present study. The study was conducted using a qualitative case study within an interpretive paradigm. Twenty-five pre-service teachers were purposely selected to complete an open-ended questionnaire. Results revealed that pre-service teachers enjoyed online field experience because of its flexibility. In as much as they feel prepared to teach young children using technology on a face-to-face basis, the pre-service teachers paradoxically seem unprepared to teach online classes.

Keywords: Field experience, online teaching, Pre-service teachers, Technology.

1. Introduction

COVID-19 has negatively affected humans in all sectors of society across the globe. The education sector was affected as schools and universities were forced to close and to transfer education online. According to UNESCO, school closures that started from the beginning of February and March of 2020 impacted at least 90% of the world's population of students (Cavanaugh & Deweese, 2020). The United Arab Emirates (UAE) like much of the world "locked down" its education field beginning in March 2020. This necessitated a swift and efficient transition from conventional face-to-face classes to online learning. In conformity with international best practice, the UAE government announced an early four-week spring vacation for the universities to prepare for the online transition (Jarallah & Reynolds, 2020; Makura, 2014). Therefore, technology plays a role in pre-service teaching and learning.

1.1 Challenges and Opportunities of Online Learning during COVID-19

Many scholars have written about online teaching and learning in and out of the context of COVID-19 (Ahmed, Allaf & Elghazaly, 2020; Bao, 2020). Guðmundsdóttir and Hathaway (2020) state that 1.5 billion people have been affected by the COVID-19 pandemic. The number includes teachers who have had to learn how and revert to teach online. Teaching and learning during the COVID-19 crisis presented some challenges and opportunities. A critical challenge is that of teaching special needs students and low-income students whose families cannot afford to buy technological devices. Sullivan, Hillaire, Larke and Reich (2020) indicated that the change that occurred with the COVID-19 pandemic had a negative impact on students with disabilities and those from poverty-impacted families with low incomes who could not access reliable internet or digital devices. Karkar, Fatlawi and Al-Jobouri (2020) argue that there are developing countries where students have difficulties in accessing technology and digital devices which limits their e-learning experiences. Kibuku, Ochieng and Wausi (2020) conducted an empirical study and reported that due to inaccessibility to robust internet connectivity and technological devices, some students did not have meaningful online learning experiences.

Online learning is not only a challenge to students who cannot afford devices and connectivity, it can also affect students with devices and connectivity as they sometimes experience social isolation. Abbasi, Ayoob and Memon (2020) argue that an online learning experience can lead to social isolation and lack of student-teacher interaction as students tend to study alone, attend classes and answer questions individually. In some instances, some instructors faced challenges when developing materials and learning activities for students as they lacked expertise on designing and implementing online courses (Buus & Pilgaard, 2019).

Regardless of challenges experienced in online learning, there are more opportunities associated with online teaching and learning. Gómez (2020) argues that the COVID-19 crisis has presented an opportunity for instructors at some institutions to think outside the box and find creative and innovative ways of meeting a new set of online learning experiences for students. Instructors did not have much choice but to go digital as the use of technology

became the sole means of teaching students during lockdown (Hall, Roman, Jovel-Arias & Young, 2020). Some students showed a positive attitude towards online learning because of its flexibility where they could learn anytime and from anywhere. Ja'ashan (2020) postulates that online learning system has great potential of enhancing students' learning experiences by improving communication between instructors and students and students among themselves. Some students showed acceptability toward online learning as it is easy for the new generations to use technology these days. Abbasi et al. (2020) contend that online learning is good as the new generation of students is able to use it since they use devices most of the time. Thus, online learning has the potential of making digital natives more skilled and better prepared to work in a global economy that is digital. Lowenthal et al. (2020) underscored the benefits of online learning, particularly with synchronous classes. They noted that real-time digital courses enable instant clarification of doubts. However, a pressing challenge they identified is translating hands-on field experiences to online settings. Field experiences, crucial for practical skills in many disciplines, take time to fit into the digital realm. This presents a dilemma for the effectiveness of specific online educational endeavors.

1.2 Field Experience in Online Settings

As a result of closure of schools, pre-service teachers had to conduct field experience online. Sasaki et al. (2020) support the view of online field experience by providing an insight into a technology-based simulated classroom to support the practicum students' experience. To achieve this, Kier and Clark (2020) suggest that teacher candidates need to experience the direct and indirect effect of the pandemic. Most of them demanded to leave teaching internships needed for graduation, but at the same time, being able to use technology to support other learners through the use of virtual learning. COVID-19 has changed the way teacher candidates are being prepared, as they are being made to practice the needed skills virtually instead of only covering the curriculum (Evagorou & Nisiforou, 2020). Lowenthal et al. (2020) explained how the COVID-19 pandemic forced universities and schools to move all courses to an online learning format. As a result, many faculties, including staff, made a transition for their courses to become synchronous and asynchronous classes, including field experience.

Evagorou and Nisiforou (2020) state that there is a need for more professional development of staff so that they know how to support students during their field experience. Cavanaugh and Deweese (2020) postulate that some teachers need more professional development on how to use the new applications that are used in distance learning as they begin to use new digital tools. Regrettably, not all of them have the wide knowledge of using technology in their daily teaching lives. Mohebi (2018) embarked on an explanatory mixed-method study to understand UAE pre-service teachers' and instructors' perspectives on trainee teachers' preparedness to use technology for future classroom practices. She used the Technological Pedagogical and Content Knowledge (TPACK) model to collect quantitative data from 359 participants and qualitative data from 18 participants. Her study found that practical experience in schools was the most significant factor that influenced the acquisition of knowledge and skills regarding information communication technology (ICT) integration in

the classroom. This finding supports the need for pre-service teachers to be taught content knowledge and digital pedagogical skills adequately in order to make them better prepared to teach in schools. Therefore, the present study revealed that hands-on experience in schools significantly affects the understanding and application of ICT integration. Pre-service teachers' exposure to content knowledge and digital pedagogy is vital. This ensures they are well-equipped to instruct in modern classrooms. Thus, practical training is essential for effective ICT-driven teaching.

1.3 Pre-service Teachers' Preparedness to Teach in Schools

Preparedness to teach was defined by Council for the Accreditation of Educator Preparation [CAEP] (2018) as someone who has the content and pedagogical knowledge to address children's developmental learning levels. Being prepared and experiencing a sense of preparedness for teaching are key components of any teacher education programme (Alsaleh, 2019). Stelly (2020) contends that a pre-service teacher can only be seen as prepared to teach if he/she can understand the students, the curriculum, how to plan a lesson and to be able to handle a classroom with some degree of flexibility including addressing the needs of students with diverse learning needs. In the Turkish context, Akdemir (2019) investigated the preparedness of 211 pre-service teachers to teach using different variables. Results indicated that pre-service teachers were effective in creating an effective learning environment and designing the process of teaching and technological and pedagogical competencies. The results indicated that pre-service teachers encountered difficulties related to specific grade levels and subjects they were teaching.

Aybek and Aslan (2019) delved into the connection between pre-service teachers' confidence in their abilities, termed "self-efficacy beliefs," and their level of preparedness to teach. Their results highlighted that these aspiring teachers felt confident in their skills and abilities. Furthermore, they felt well-prepared to undertake teaching roles. In essence, the study underscores that when pre-service teachers strongly believe in their capabilities, they also feel ready to step into the classroom. This development contributed to producing well-educated students with a positive teaching career. Similarly, Brown, Myers and Collins (2019) investigated the relationship between early childhood/elementary pre-service teachers' sense of teaching efficacy and feelings of preparedness and actual performance during student teaching. Their findings showed that both perceptions of preparedness and sense of teaching efficacy increased significantly during practicum teaching. In the Saudi Arabian context, Alsaleh (2019) argues that pre-service teachers felt prepared to teach mathematics at secondary or middle school level. Her findings indicated that pre-service teachers identified preparedness as having teaching efficacy, good knowledge for teaching, a sense of preparedness and professionalism. However, they were not aware of all the types of knowledge they needed to be prepared. They were positive in areas of either content or pedagogy, but not in both. They also expressed concern in classroom management and closing the gap between theory and practice.

1.4 UAE Pre-service Teachers' Experiences of Online Field Experience

The swift transition to online learning and instruction throughout the COVID-19 pandemic presented difficulties for educators in every part of the world. Jarallah and Reynolds (2020) documented the sudden school closures that were ordered due to the pandemic in the context of the United Arab Emirates (UAE). Lowenthal et al. (2020) described adjustments to digital platforms that were analogous to these, and they emphasized the significance of asynchronous video tools to keep engagement and connection. Gumundsdóttir and Hathaway (2020) conducted additional research on the agency of educators during these difficult times. They observed that teachers always find ways to "make it work," despite unforeseen challenges. It was clear that teachers could adjust to new circumstances, which is especially important in times of emergency. Nevertheless, there was a significant lack of information in the available literature concerning the particular experiences of pre-service teachers in the UAE during this period.

It is impossible to overstate how crucial it is for teachers to be well-prepared in this day and age. According to a study conducted by Brown, Myers, and Collins (2019), which examined the relationship between a pre-service teacher's sense of efficacy and preparedness and their performance, readiness plays a significant role in effective teaching. Aybek and Aslan (2019) found that pre-service teachers had a higher level of confidence in their abilities and a stronger sense of readiness for teaching in the classroom when they believed in their capabilities. Nevertheless, neither the context of the UAE nor the particular difficulties posed by the pandemic were explicitly addressed in any of these studies.

1.5 ECE and Technology in the UAE

Early childhood education (ECE) has a variety of specific prerequisites, particularly concerning the incorporation of technology. Clements and Sarama (2002) discussed the significant role that technology plays in the educational experiences of young children. Because of the increased demand for online education during the pandemic, these technologies have taken on an even greater significance. However, making the transition took a lot of work. The authors Buus and Pilgaard (2019) discussed the challenges in the e-learning design, particularly for educators with restricted time and access. Insights into how pre-service teachers in the United Arab Emirates dealt with these obstacles in early childhood education (ECE) during the COVID-19 lockdown remain scant.

Implementing technology in education, particularly early childhood education, is wider than the simple process of moving content online. Social Learning Theory supports the theoretical framework that Skinner & Fream (1997) developed offers a framework for understanding the expansive learning experiences that technology has the potential to provide. In addition, Mohebi (2018) investigated the perspectives held by pre-service teachers regarding their TPACK capabilities, which is an essential framework for the incorporation of technology into the classroom. Social Learning Theory (SLT), rooted in the idea that individuals learn through observing and imitating others, is highly applicable to the online framework of pre-service teaching. The studies by Skinner & Fream (1997) and Hogben & Byrne (1998), although

focused on computer crime and human sexuality, underscore the importance of observation, modeling, and the influence of digital media in shaping behaviors. Translated to an online teaching context, pre-service teachers can benefit from observing experienced educators, being influenced by peer behaviors, and receiving timely feedback through digital platforms. Embracing the principles of SLT ensure a more holistic and practical learning experience for future educators in the digital age. While these studies provide a foundation, there is still a need to understand how pre-service teachers in the UAE applied these frameworks in practice during the lockdown in 2020.

1.6 Challenges and Prospects of Online Teaching

The abrupt pivot to online teaching was challenging. Bao (2020) highlighted the challenges faced during online teaching in higher education during the pandemic. Similarly, Kibuku et al. (2020) and Karkar et al. (2020) elucidated the e-learning challenges faced in Kenya and the University of Kufa, respectively. These studies, though not specific to the UAE, underscore the universal challenges of the online education shift. Understanding the unique experiences of UAE pre-service teachers during this global shift can provide invaluable insights for future preparedness and pedagogical strategies.

2. Purpose of the study

There exists a substantial body of literature that speaks to students' experiences of having regular online classes; however, there is a dearth of studies on pre-service teachers' experiences of conducting field experience online and their preparedness to teach children in the early childhood phase using technology. A lack of knowledge on pre-service teachers' preparedness to teach online, in a context where online learning has taken a centre stage is worth investigating. Therefore, the purpose of the study is to explore pre-service teachers' preparedness to teach using technology in early childhood education (ECE). The study is guided by two critical questions:

i) What is the UAE pre-service teachers' experiences of doing field experience online during the 2020 COVID-19 lockdown period?

ii) To what extent are UAE pre-service teachers prepared to teach children in ECE using technology?

3. Methods

The study adopted a qualitative approach that falls within an interpretive paradigm. A qualitative approach was deemed appropriate since the researchers intended to collect rich textual data from the pre-service teachers. This is consistent with Leedy and Ormrod's (2015) notion that a qualitative approach is ideal for a study that requires participants to provide textual data through interviews or open-ended questionnaires. An interpretive paradigm was chosen as it is compatible with a qualitative approach (Creswell, 2012) and it allows researchers to conduct an in-depth investigation about a particular phenomenon. Lapan, Quartaroli and Riemer (2012) submit that all qualitative research has an interpretive

perspective which focuses on uncovering participants' views. The two methods allowed participants to express their views freely regarding their preparedness to teach using technology.

3.1 Participants

The study was an exploratory case study of a university in the UAE. A case study was chosen because of its specificity. It identifies a group of participants, a particular setting and a specific situation or event (Creswell, 2012; Creswell & Poth, 2018). This is applicable to this study where the group of participants identified are pre-service teachers conducting field experience, the setting is learning online or in schools and the specific situation is pre-service teachers' preparedness to teach. A case study was ideal for this study as it enabled researchers to undertake an in-depth investigation of the phenomenon (Yin, 2018). A purposive sampling technique was used in selecting the study sample. It is characterized by deliberate targeting of information-rich participants (Fraenkel, Wallen & Hyun, 2015). Twenty-five pre-service teachers who were doing Practicum III and Internship were selected to participate in this study. Practicum III pre-service teachers were about to go for Internship. This required them to teach children in schools longer than they do in Practicums I and II. Internship pre-service teachers were purposely selected as they were about to finish their degree studies and were ready to work in schools as qualified teachers. As a result, these two groups (Practicum III and Internship) included pre-service teachers who had long field experience which made them suitable candidates to share their views about preparedness to teach using technology in schools. The participants' ages ranged between 21 and 25 years. Ethical issues were observed by obtaining an ethical clearance certificate from the university, informing all participants of the purpose of the study and telling them that their participation was voluntary. Informed consent forms were signed by the participants. All participating students were accorded the freedom to withdraw from the study at any point. Confidentiality was maintained throughout the study. Participants' names were not used. Pseudonyms were used in place of lecturers' names which were cited by participants. There was no breach of ethical considerations prior to, during and after the research was conducted.

3.2 Theoretical Framework

The basic tenet of social learning theory (SLT), which holds that learning is a cognitive process influenced by the social environment, is that people pick up knowledge and behaviors by watching and imitating others. Research on computer crime among college students by Skinner & Fream (1997) revealed how digital environments and peer online actions affected students' conduct. This is similar to the setting in which pre-service teachers encountered the 2020 lockdown, where they had to learn how to adjust to unfamiliar situations in an overwhelmingly virtual learning environment. In his analysis of criminal computer behavior, Rogers (2001) emphasized the significance of moral disengagement in the digital sphere. The difficulties in developing a solid moral and professional ethos in virtual environments are highlighted by this study, which may worry pre-service teachers attempting to establish a reputation in the virtual classroom.

Grusec (1994) emphasized the influence of SLT on developmental psychology while acknowledging the contributions of the field's pioneers. This means that when using technology in early childhood education (ECE), pre-service teachers can incorporate SLT principles to help young learners model and imitate positive behaviors. Brauer & Tittle (2012) investigated the relationship between SLT and reinforcement from humans. The concept of reinforcement is essential for assessing pre-service teachers' readiness to use technology to help children learn concepts, particularly in online learning environments. Morris & Higgins (2010) used SLT to address digital piracy, illustrating how flexible the theory is in explaining behaviors where technology is prevalent. This applicability highlights the value of SLT in examining pre-service teachers' preparedness and effectiveness in utilizing technology in early childhood education.

Social Learning Theory (SLT), which emphasizes the acquisition of behaviors and knowledge through observation within social contexts, provides a robust foundation for understanding the experiences and preparedness of UAE pre-service teachers in a digital age. For instance, Skinner & Fream (1997) and Morris & Higgins (2010) reveal how digital environments influence behavior, implying that teachers' experiences during the 2020 lockdown were shaped not just by online platforms but also by observing peers and mentors. Similarly, as Rogers (2001) and Akers & Jennings (2019) discuss the interplay between technology and learned behaviors, it underscores the crucial role of technological competence for effective teaching in ECE.

3.3 Setting of the Study

The study was undertaken at a college of education at a university in the UAE. The college aspires to be the leader in the development of innovative bilingual professionals dedicated to the advancement of national and international communities. The college provides pre-service teachers with an internationally recognized programme of study for field experience. It aims at helping pre-service teachers to link theory with practice. The college has a field experience model which has four fundamental stages namely, Practicum I, Practicum II, Practicum III and Internship. Practicum I require pre-service teachers to observe children's learning in a variety of classroom settings. They complete several morning placements in early years classroom settings in both private and government schools. During Practicum II, pre-service teachers observe the class teacher and teaching practices in a classroom setting. They complete several full-day placements in an early year's classroom setting where they observe, assist, teach mini lessons and conduct a read-aloud. In Practicum III, instructional planning and implementation are emphasized. Pre-service teachers complete ten full-day placements in an early year's classroom where they assist mentor teachers, teach mini lessons and begin to teach whole class lessons. The final stage is Internship which involves pre-service teachers conducting whole class teaching. They assume an increasingly significant teaching role and conduct an impact study in a classroom over an extended number of consecutive weeks, demonstrating their readiness to graduate and join the teaching profession. This study comprised of students who were doing Practicum III and Internship. The students had to complete their field experience online as schools were closed as a preventative measure to

reduce the spread of COVID-19. Students did not have prior experience of teaching young children online and they did not receive training related to the implementation of remote teaching.

3.4 Data Collection and Analysis

Data were collected using an open-ended questionnaire. This data collection tool was selected as it is compatible with a qualitative study where participants have to provide information according to their subjective views (Creswell, 2012; Fraenkel et al., 2015). Data were analyzed inductively to identify specific units of data from completed questionnaires. Researchers analyzed data manually by first and foremost organizing it, coding it using different colours, collapsing the codes into two main themes (Creswell, 2012) and discussing each theme in detail. The two themes (experiences of online learning and preparedness to teach using technology in ECE) are aligned with the critical research questions to be explored in this study.

4. Results

Pre-service teachers participated in this study soon after completing their field experience, that is Practicum III and Internship. They were in schools for approximately four weeks. During the other six weeks they had to do their field experience online with their university supervisors because schools were closed during lockdown. Pre-service teachers reflected on their experiences of online learning during field experience and commented on their preparedness to teach children in ECE using technology.

4.1 Students' Experiences of Online Learning during Field Experience

Although the ten weeks of field experience were supposed to be completed in schools, pre-service teachers did not feel that they lost much by not being in schools. They enjoyed the online learning experiences they had with their university supervisors. What made pre-service teachers enjoy online field experience the most was the flexibility in performing the tasks assigned to them in their own time and in the comfort of their homes. One pre-service teacher said:

I really liked the learning experience because it allowed me to manage my time well and feel comfortable while studying. Also, I tried online teaching (volunteering) and I found it easy and perfect for the learners and I because we chose the time that is good and fits our schedules.

The interviewee appreciated the flexibility of online learning, highlighting its benefits in time management and comfort. They also positively experienced online teaching as a volunteer, emphasizing its convenience in scheduling for both teachers and learners. Overall, the digital platform was seen as adaptable and beneficial. Similarly, another pre-service teacher commented on the issue of flexibility saying,

It was a new and interesting experience. What I enjoyed was working from home because it was comfortable. However, sometimes I feel that [when] contacting my instructors in real life

is more beneficial because the connection is important when it comes to comprehension.

Some pre-service teachers liked the online field experience so much, to the extent of wanting that to be implemented even when things got back to normal after COVID-19. Pre-service teachers felt that online learning made them become more productive and the experiences they had were good as they enabled them to gain knowledge and skills which could be used in future. A pre-service teacher confirmed this saying,

I thoroughly enjoyed the online learning experience. I find myself to be more productive and on task. I also got the chance to catch up on my hobbies and social/family life. Since I have already completed my practicum [field experience] classes, I don't find any issue with the other courses being online. I also think that it would be great if practicum classes take place online, and give teacher candidates a chance to experience remote learning. This can be a useful skill to learn for the unpredictable future. Finally, I found that the most effective way to gauge our online learning experience was through writing reflective essays (Explaining what we learned, how we could use it in the future, and what we would change or add, ...etc.) rather than having exams.

Another pre-service teacher confirmed the same view that learning online was both flexible and ultimately enabled her to be more productive as opposed to going to study on campus saying,

There were positives in my experience in learning via the internet. Firstly, I spend more time doing tasks compared to the time I was spending when attending university; ssecondly, there is time to prepare and study better, and tthirdly, I learned to organize my time between studying and my personal life.

Some pre-service teachers liked the way their university supervisors were teaching and observing them online. A pre-service teacher who liked the way she was taught online during field experience said,

I like how the teachers teach and how some teachers understand what we are going through at this time and that makes us feel comfortable and not worried about the course. I am in Dr Tim's class. The class has a positive energy which makes this summer course enjoyable.

Another pre-service teacher who liked the online observations said,

Teaching from home is very different from teaching at school. I don't get the opportunity to teach online but do two of my observations online with Dr. Sheila. It is good to adapt to new circumstances and learn during these times.

The interviewee noted the distinct difference between home and school teaching. While they had not personally taught online, they underwent online observations, emphasizing the importance of adapting and learning amid changing circumstances. It was not easy for pre-service teachers to do field experience in this manner. The experience required both pre-service teachers and supervisors to adapt to the new style in order to successfully complete the course. Despite the challenges to adjust to online learning, pre-service teachers

learned a lot from the experience. One pre-service teacher said,

From this experience, I learned a lot. I learned how to manage my time as a student and mother. I also learned how to use applications and technology in learning and I want to be a good teacher who teaches online.

Some pre-service teachers did not only learn from the online classes they had with their supervisors, they also learned from their experiences of supporting their siblings with their schoolwork. A pre-service teacher confirmed this saying:

I have learned a lot from my own experience and observing my younger brother, a fourth-grader, attend his online classes. The important things are keeping the content to the point and focusing on the learning objective. Try to take a short time. Please encourage students to review the work and lesson independently or with a caregiver/parent. Empathize with students' situations and try to understand them because sometimes they will not be able to attend class. As a teacher, I can help them by meeting individually to catch up on the content.

Pre-service teachers had massive responsibilities of not only ensuring that their university work is done, but also to support their children or siblings with their schoolwork. The online experience was unsettling for some pre-service teachers due to the presence of other activities they had to manage simultaneously. One pre-service teacher commented about her experiences saying,

It was a new kind of experience that added to me as a teacher candidate to be prepared for all working and teaching conditions and how to use different strategies and teaching techniques in a creative, fun and useful way that can gain students the needed knowledge. However, teaching and learning online is harder because in reality the teacher can actually observe the student. Still, in a virtual world, the teacher may face challenges in delivering the knowledge to the student. In addition, real-life experience allows the teacher to contact the student quickly. It will enable teachers to use various strategies like teaching by doing and using rewards to motivate and encourage students to learn. While in the home, the valuable information may get lost because the child may play during the class. Also, this way may be similar to the traditional way of teaching because the students are mostly listening without having hands-on activity.

Most pre-service teachers currently describe their online learning experiences as positive. However, a few find the experience unbearable. The opinions on online learning among them vary. A pre-service teacher described her experience saying that *it is horrible for me. My professors tried so hard, but I could not keep up with everything.* Very few pre-service teachers expressed negative views about their experiences of learning online. They liked the process and wished it could be implemented more often even after the COVID-19 crisis was over. Most pre-service teachers expressed negative sentiments regarding their preparedness to teach children in ECE using online means. They vouched for their preparedness to teach using different technologies, though they stated they were not entirely prepared to teach

young children online.

4.2 Preparedness to Teach ECE Using Technology

Generally, pre-service teachers confirmed that they felt adequately prepared to teach ECE children in schools using different strategies. Pre-service teachers are equipped to teach using various technologies in face-to-face school settings. However, they feel unprepared to conduct online classes for children in ECE. While they are adept at integrating technology in traditional classrooms, the prospect of wholly online teaching, should the Ministry of Education decide against in-person schooling next year, remains challenging.

Pre-service teachers gave various reasons for their ill preparedness to conduct online classes. These include the view that children in ECE are too young to learn online. A pre-service teacher said: *"I think having elementary and kindergarten children in an online class is not the best idea. They could barely stay focused during actual activities."* Similarly, another pre-service teacher who felt that children in ECE cannot be taught online said: *"I am not prepared to teach any child that is below the fourth grade online due to the need for maintaining eye contact with the children, and due to their short concentration."*

Pre-service teachers felt that they are not prepared to engage with children in ECE using online platforms citing inability to manage classes including engaging children in their learning. This was succinctly confirmed by a pre-service teacher who said: "*I am not prepared for this experience in the slightest. I don't know how to explain my lessons or how to manage my classroom and keep my learners engaged."*

In any learning environment, class management and learner engagement are vital. If the two components are not achieved, whether in online learning or a face-to-face situation, it will be hard for the teacher to achieve stated objectives, let alone for effective learning to take place. It is not going to be easy to manage young children in online settings. A pre-service teacher who said confirmed this,

Classroom management would be difficult as I most likely would not see or know what the learners are doing. Using resources like videos and audios to gain their attention is a good way to have a great engagement with the learners.

Some pre-service teachers reported that they are not prepared to teach online as they did not have an opportunity to do that during their field experience. Their field experience was done in school settings and they did not teach children online, hence they felt they are unprepared to teach online classes. This was confirmed by a pre-service teacher who saidd, *"it is very hard teaching online only; we need the classroom to help children to learn."* Another pre-service teacher said,

I am not well prepared because I do not play a role of a teacher, so I do not know how it should be but I will do what I will feel is good for my learners, for example: give them small tasks every week and make a small test to track their progress, I will be in touch with their parents to check if they have any issues or they want to change something they do not like. I

will try to spread the positive energy because that is what they need in this difficult time. I will make my lessons more fun and enjoyable so that they do not get bored.

A view of parents or guardians taking a more active role in the online learning of young children was reiterated by many participants in this study. Some pre-service teachers felt that children will have a modicum to learn as much of the work will be done by the parents. One pre-service teacher who felt that she is not prepared for online learning and that the children will depend more on parents or guardians said,

I think that it is very hard for us as well as for the children. As for us there are not much materials in the internet that we can use in our lesson to make the children become active learners and learn. Some children are sitting with their parents, and they get help with every answer. The child does not have the chance to think as parents will be helping all the time.

Despite the varying views which pre-service teachers echoed about their unpreparedness to conduct online classes with young children, they showed enthusiasm in learning how to do this. The students felt they needed some guidance and training on how to facilitate online classes with ECE children. One student said,

Because this is the first time, we face that kind of experience and we did not get enough knowledge to be prepared for that type of teaching, we will need some guidance and a leading way to direct us to the right way. After that I might share ideas and strategies in how to apply my teaching techniques in order to meet the goal.

Similarly, another pre-service teacher reported that she will need to be pointed in the right direction and given instructions on how to conduct online classes with young children,

I will need to have clear instructions on how to teach young learners and the type of strategies that I can use in order to meet learning objectives and to deliver the knowledge to all the learners. There is education for all, so all the learners should be able to get the needed support to learn better.

Pre-service teachers acknowledge that learning how to teach online is a skill they will need as the country is making big advancements in technology. This implies that teachers will need an understanding of online teaching. Pre-service teachers understand that they need to add teaching using online platforms to their skill set despite the associated challenges. This is why they are willing to go for training related to online teaching. A pre-service teacher said,

I am willing to learn and go through training. I am aware that it would be challenging, but I think it would be a great skill to learn. This might be what the future of education looks like in our country and I would like to train and understand it better.

Another student listed different aspects she would like online training to focus on pre-service teaching:

I would like to receive training on how to use the online platform, how to plan an online lesson, how to deliver a lesson online, how to maintain classroom management online, and

how to assess learners during distance learning.

Although the majority of pre-service teachers pleaded for additional support with online teaching, a few reiterated that they are fully prepared to teach using online means in ECE. A pre-service teacher said, *"I am fully prepared [to teach online]. I tried online teaching for a long enough period, and I did not face any struggles or difficulties."* Another pre-service teacher simply rated her preparedness as 100% prepared to facilitate online teaching with young children. Another one said: *"I am fully prepared to teach online."*

5. Discussion

Generally, pre-service teachers who are the subject in social learning theory applauded online learning experiences they had during the time of learning under lockdown (Hogben & Byrne, 1998; Skinner & Fream, 1997). Pre-service teachers liked the flexibility and opportunities that come with learning online. This concurs with Ja'ashan (2020) who contends that online learning presents many opportunities which include the attainment of common graduate attributes such as digital literacy which is sought after by employers in the 21st century. It enables pre-service teachers to exercise soft skills such as time management, organizational skills and multi-tasking abilities (Mohebi, 2018). Despite the view that pre-service teachers liked online learning experiences, they felt unprepared to teach online.

Stelly (2020) conceptualizeed a prepared teacher as one who can engage and manage students and more importantly offer differentiated support. Participants in this study showed that they are able to do that (class engagement, management and supporting students) on a face-to-face basis, but not in online settings as they lack training in that regard. Online learning requires a lot of interaction which many pre-service and in-service teachers find difficult to implement. Cruickshank, Pill and Mainsbridge (2021) contend that in Australia some teachers had a hard time engaging and managing children in online classes. They were used to implementing the curriculum using face-to-face strategies. Similarly, Akdemir (2019) argues that pre-service teachers in Turkey had comprehensive understanding of subject knowledge and pedagogical skills within a face-to-face teaching and learning setting. In order for pre-service teachers to reach the same level of preparedness in online teaching, they require some additional training. El Sayary, Forawi, and Mansour (2015) recommend that teachers participate in professional development programs to incorporate critical thinking skills into their teaching methods (p. 365). Therefore, this research suggests that to integrate critical thinking into teaching methods effectively, teachers should participate in specialized training programs. The findings underscore the vital role of continuous professional growth in enhancing pedagogical approaches and ensuring students benefit from critical thinking-infused instruction. Training sessions that can be offered online or face-to-face will form part of tools in Social Learning Theory. The training sessions will be aimed at capacitating pre-service teachers (Aybek & Aslan, 2019) so that they reach the object, which is effective teaching in ECE.

Social learnin community was conceptualized when pre-service teachers reflected on the issue of parents/guardians as having an essential role to play in young children's online

learning experiences. The parents/guardians need to support the child and make sure that activities given by the teacher are implemented. This makes online learning in ECE difficult to implement, as the teacher alone may not achieve much without a parent's support (Clements & Sarama, 2002). Teachers adhere to rules and regulations of the college when they were doing their field experience. They completed their assessments including portfolios and online sessions with university supervisors in line with the regulations articulated in the field experience handbook. The study's findings align with Skinner & Fream (1997), Social Learning Theory, which emphasizes the importance of adhering to rules and guidelines to attain desired results.

The purpose of this study was to explore pre-service teachers' preparedness to teach using technology in ECE. Pre-service teachers demonstrated acquisition of content knowledge but still lag behind when it comes to pedagogical skills needed within an online setting. This makes them unprepared to teach young children online. This gap challenges curriculum development practitioners in teacher training institutions to renew the programmes and modules in order to integrate more digital literacy-related topics to inculcate graduates with competent pedagogical skills relevant to the contemporary environment. Ability to use various technologies is one of the critical skills needed in the education sector as the global pandemic of COVID-19 has challenged teachers to be able to teach using multiple modalities which include online and face-to-face. Pre-service teachers demonstrated preparedness to teach ECE children on a face-to-face basis using different technologies rather than conducting online classes. This appears unsurprising since they have not taken a training course that equips them to conduct teaching of young children in an online setting. This is perhaps why they expressed views about unpreparedness to teach online. On the basis of the foregoing, it is recommended that pre-service teachers be capacitated in teaching online (in case schools are forced to shut down) through embedding a short course in their degree programme. The course can focus on different aspects which include teaching young children online, assessing ECE online and how to manage ECE children online. This is important as it fills the void that currently exists between pre-service teachers' abilities to teach using technology and their preparedness to conduct online classes.

6. Conclusion

The transition to online learning for pre-service teachers has been met with various responses, ranging from overwhelming positivity to apprehension and unease. Many of these prospective educators praised the flexibility and time management benefits of the digital format, particularly noting its potential relevance in an uncertain future. Notably, there was an emphasis on reflective essays as a more meaningful form of evaluation than traditional examinations. However, several concerns were voiced, primarily focused on the perceived inefficacy of online teaching, especially for Early Childhood Education (ECE). Many felt the unique demands of young learners, such as shorter attention spans and the necessity of hands-on learning, made virtual instruction a challenging endeavor.

The role of technology in contemporary education is undeniable. Pre-service teachers, while comfortable integrating technology in traditional settings, expressed feelings of being underprepared for a fully online pedagogical approach, especially for younger students. Despite their reservations, there was a consensus about adapting and developing the skills needed for this evolving teaching landscape. Their concerns often revolved around class management, engagement, and the potential over-reliance on parents or guardians in an online ECE environment.

In light of the evident need, there is a clear call for more structured training and guidance in online teaching methodologies for pre-service educators. Recognizing the potential permanence and growth of online teaching in the future, these educators are seeking clear instruction, resources, and strategies to serve their students better. Although a fraction of participants felt ready to tackle the challenges of online teaching head-on, the broader sentiment leaned towards a desire for additional preparation, signifying the importance of institutions adapting their training models to suit the demands of modern education.

Recommendations

On the basis of the foregoing, it is recommended that pre-service teachers be capacitated in teaching online (in case schools are forced to shut down) through embedding a short course in their degree programme. The course can focus on different aspects which include teaching young children online, assessing ECE online and how to manage ECE children online. This is important as it fills the void that currently exists between pre-service teachers' abilities to teach using technology and their preparedness to conduct online classes.

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