



Perception of Early Childhood Education Lecturers on The Use of Virtual Learning

Azeez Arisekola Salman*, Olarewaju Yahaya

Kwara State University, Malete, Nigeria

*Correspondence: E-mail: Arisekola.salman13@kwasu.edu.ng

ABSTRACT

Despite the advantages of virtual learning, its implementation in early childhood education (ECE) is still in its infancy, and its effectiveness in this field is still under scrutiny. The study examined the perception of early childhood education lecturers on the use of virtual learning in Kwara state. The study adopted a descriptive survey research design. The population comprised all lecturers in both public and private tertiary education teaching Early Childhood Education in Kwara State. The sample size is 60 lecturers, the instrument used for data collection was a questionnaire titled Perception of Early Childhood Education Lecturers on Virtual Learning (POECELOVL), one research question, two hypotheses guided the study, the instrument was validated by an expert in the test measurement and evaluation and the PPMC was used for the reliability which yielded. frequency mean and percentage, t-test, and ANOVA were used for the both research question and hypotheses. Meanwhile, the study revealed that Early Childhood Education lecturers had positive perceptions of the use of virtual learning in ECE. It was concluded that Early Childhood Education lecturers had positive perceptions of the use of virtual learning in ECE. Based on the findings it was recommended that educational institutions adapt virtual platforms and channels that meet the needs and interests of students,

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1. INTRODUCTION

The COVID-19 pandemic has brought unprecedented changes to the education sector, with virtual learning becoming a norm in many countries. In particular, early childhood education has been challenged to rapidly adopt digital technologies to support learning and teaching. The use of virtual learning in early childhood education is a relatively new phenomenon and there is a growing interest in understanding the perspectives of those responsible for delivering it. The emergence of the coronavirus disease in 2019 caught every nation unaware. It became so serious that it constituted a health emergency and was declared a pandemic in February 2020 by the World Health Organization. The pandemic affected nearly all socio-economic and education systems of every nation across the globe. Many lives were lost, schools were shut down and there was a huge economic loss. The pandemic has made so many universities lose communication with students and the use of virtual learning was introduced which is an environment where students study a digital-based curriculum taught by an instructor who lectures online via video or audio. It can take place either in a self-paced environment or in a real-time environment. Virtual learning is not a new phenomenon in the promotion of education in some parts of the world. Currently, some Nigerian institutions use it to promote distance learning and lifelong learning which early childhood educators are not exempted from ([Stacey & Wiesenber, 2007](#)).

Early childhood has a very long and rich history with invaluable contributions from some of the greater theorists in child development and education. Montessori believed that early childhood learning required a two-pronged approach: educate the child's senses first, then educate the child's intellect. Her approach was to view the children as sources of knowledge with the teacher or educator acting as a social engineer. Her hands-on approach to instruction with the learning environment being deemed as vital as the knowledge itself has transformed academic success for many children who did not respond well to traditional classroom methods ([Dabbagh & Kitsantas, 2012](#)).

[Mirski and Gut \(2020\)](#) believed that social interaction is an important vehicle for child development on linguistic, social, and cognitive levels. He introduced the concept of a teacher as more of a learning facilitator where the child learns by working with someone more capable than the child (typically a teacher or parent). The teacher helps the child with tasks that are just beyond or just within the capability of the child. He also believed that grouping children of mixed ages in a learning environment supports their skill and knowledge acquisition. The variables of interest in this study are Gender and teaching experience.

According to [Milovanović and Stepanović-Ilić \(2020\)](#), virtual learning environments offer numerous advantages over traditional classroom-based learning. These advantages include the ability to access learning materials at any time and place, the availability of multimedia materials, the possibility of synchronous and asynchronous communication, and the use of interactive and collaborative learning tools. However, despite these benefits, virtual learning environments also pose several challenges that could impact the effectiveness of ECE instruction.

One of the significant concerns of ECE lecturers is the lack of face-to-face interaction with their students, which could result in a reduction in the quality of communication and the ability to gauge students' reactions ([McKee & Gregersen, 2019](#)). Additionally, ECE lecturers may face difficulties in adapting their teaching methods and strategies to the virtual learning environment. For instance, they may need to modify their teaching materials and use different instructional techniques to enhance the learning experience ([Chen & Hsieh, 2018](#)).

However, despite these challenges, ECE lecturers who have experience in using virtual learning environments have reported positive outcomes. For instance, some ECE lecturers reported that virtual learning environments enabled them to create a more flexible and adaptable learning environment (McKee & Gregersen, 2019). Others noted that they could provide students with more individualized attention and feedback, which could positively impact student learning outcomes (Chen & Hsieh, 2018).

The years of teaching experience influence the teachers' use of ICT tools for instruction, they also emphasize that teachers who have 5-10 years of teaching experience are accorded with high percentage usage of ICT for teaching and learning followed by the ones who have 1-4 teaching experience while the teachers who have more than 20 years teaching experience tends to have a lower percentage in the use of ICT for teaching and learning.

Darling-Hammond (2020), teachers' perspectives and current skills in online teaching using educational tools are factors affecting their experience. There are marked differences in the experiences and expectations across these generational cohorts since Generation X, Generation Y, and Generation Z have entirely different views of the world of work with Information and Communication Technology on hand. The said education system will allow teachers to develop online content such as lesson plans and instructional materials and teach aids to evaluate online. In most tertiary institutions in Kwara State, there is provision for accessible teaching and learning platforms such as a learning management system. Lecturers use media to support distance learning modalities in a precise manner of delivering Education respective to their gender. It is also a way of encouraging learners to continue learning at their respective homes (Ferri et al., 2020).

Several studies submitted that the male gender is more proficient and versatile in the use of virtual learning. However, Aremu and Fasan's (2011), studies contradict the submission. The researchers established that female teachers or lecturers have a higher knowledge of how to operate computers than their male counterparts. Also, Syvänen et al. (2016) opined that there were significant differences in perceived technological pressure between male and female educators. It indicates that the female teachers were less demanding than the male teachers, and the male gender had a higher level of computer literacy than their female counterparts. This is because the male gender had more access to computers than the female, and this will, in turn, influence their usage which makes the male a higher user of the computer than the female. The competency levels and notions of colleges of education lecturers' in Nigeria towards eLearning do not vary between males and females.

Kim (2020), the term 'online learning' refers to a form of education that takes place over the Internet. It is a type of distance learning that allows students, both childhood and adulthood, to access education from remote regions or when they are unable to attend a school, technical college, or university for various reasons. Virtual learning has many benefits, whether it is asynchronous or synchronous, it does not rely on being in the same physical location. In addition, online learning can be cost-effective because it eliminates travel and other expenses needed to attend in-person courses and can also provide adult students with learning opportunities while also engaging in a full-time or part-time job (Dung, 2020).

Virtual Learning After-Sale (2002) uses electronic technologies to provide education and training applications and monitor learner progress. Hedge and Hayward (2004) have defined this approach as an innovative approach to creating interactive, well-designed, interactive learning and virtual learning for everyone, anytime, anywhere. Using the internet and digital technologies, taking into account the principles of instructional design. It's about learning with computers or web-based learning. At present, computer learning is simply an online method of acquiring knowledge on the internet or offline using external disks. It can be in

audio, visual, or audio/visual learning technology including virtual learning, blended learning, web-based learning, television learning, etc. Several researchers have worked on virtual learning to the best of researcher knowledge none of these researchers investigated the perception of Early Childhood Education lecturers on the use of virtual learning and this is the gap this study intends to fill.

Despite the advantages of virtual learning, its implementation in ECE is still in its infancy, and its effectiveness in this field is still under scrutiny. The use of virtual learning in ECE requires a different approach compared to other levels of education, considering the developmental stage and needs of young children. The perception of early childhood education lecturers on the use of virtual learning is a crucial factor in determining the success of its implementation in this field.

The rapid advancement of technology has brought significant changes in the way education is delivered and received. Virtual learning has become an increasingly popular mode of delivering education, particularly in response to the COVID-19 pandemic, which has accelerated its adoption. While virtual learning has many advantages, including flexibility, convenience, and cost-effectiveness, there are also concerns about its impact on the quality of education and student outcomes.

In the field of early childhood education, the use of virtual learning has become a topic of debate among educators and researchers. While some argue that virtual learning can be an effective tool for delivering high-quality early childhood education, others are concerned about the potential negative impact on the development of young children.

Despite the ongoing discussion about the use of virtual learning in early childhood education, there is a lack of research on the perception of early childhood education lecturers on this topic. This study aims to fill this gap by exploring the perceptions of early childhood education lecturers on the use of virtual learning, including its benefits and challenges, and their views on its effectiveness for young children.

The results of this study will provide valuable insights into the views of early childhood education lecturers on the use of virtual learning and its impact on the education of young children. It will also contribute to the ongoing discussion about the role of technology in early childhood education and inform future policy and practice decisions in this area.

The main purpose of this study is to examine the perception of early childhood education lecturers on the use of virtual learning in Kwara State; Specifically, to determine

- (i) The perception of early childhood education lecturers on the use of virtual based on gender
- (ii) The perception of early childhood education lecturers on the use of virtual based on Teaching experience

The following research questions were addressed in this study:

- (i) What is the perception of early childhood education lecturers on the use of virtual learning in ECE?

The following research hypotheses were tested in this study:

- (i) H_{O1} : There is a significant difference in the perception of early childhood education lecturers on the use of virtual learning based on gender
- (ii) H_{O2} : There is a significant difference in the perception of early childhood education lecturers on the use of virtual learning based on teaching experience

2. METHODS

The study adopted a descriptive survey research design. The population comprised all lecturers in both public and private tertiary education teaching Early Childhood Education in Kwara State. There are 3 universities and 14 colleges of education in Kwara state. Multi-stage sampling techniques were used for the study. In the first stage, schools were divided into strata which are universities and colleges of education. There are 2 federal universities, 1 state university, 5 state colleges of education, and 8 private colleges of education teaching early childhood education in Kwara state NUC and NCCE accredited schools report 2023. Simple random sampling techniques were employed to select 1 federal university, 1 state university 3 state colleges of education across the geopolitical zone, and 3 private colleges of education. On this basis, all the lecturers in the 8 selected tertiary education teaching early childhood education were used for the study. The sample comprised 20 lecturers from universities and 40 colleges of education from both private and public tertiary schools in Kwara State. Geographically, Kwara State has three Senatorial districts. The researcher selected 3 colleges of education for both public and private.

The instrument used for data collection was a questionnaire titled Perception of Early Childhood Education Lecturers on Virtual Learning (POECELOVL) based on the purpose of the study, and this was made up of 2 sections. Section A comprised lecturer demographic data of gender and years of teaching experience while Section B comprised 10 content items using 4-point modified Likert scale options of Strong Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument was validated by an expert in measurement and evaluation. The test-retest method of reliability of the instrument was used and data obtained were analyzed using the Pearson Moment Correlation Coefficient which yielded a correlation coefficient of ($r = 0.87$).

The data collected were analyzed using descriptive statistics, including frequency distributions and percentages, to describe the sample characteristics and the perceptions of early childhood education lecturers on virtual learning. Inferential statistics, including t-tests and correlation analysis, were used to test the research hypotheses at a 0.05 level of significance. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) software.

3. RESULTS AND DISCUSSION

Table 1 shows the results of PAUD lecturers' perceptions of the use of virtual learning in PAUD. **Table 2** shows the perception of early childhood education lecturers on the use of virtual learning in ECE. The weighted average was 2.91 which is greater than 1.49 the baseline for positive opinion. This therefore shows a numerical indicator that Early Childhood Education lecturers had a positive perception of the use of virtual learning in ECE. **Table 2** shows the significant difference in the perception of early childhood education lecturers on the use of virtual learning based on gender. There was no significant difference in the perception of early childhood education lecturers on the use of virtual learning based on gender ($t = 0.807$; $df = 58$; $P > 0.05$). Therefore, in light of the result, the hypothesis is not rejected, hence there was no significant in the perception of early childhood education lecturers on the use of virtual learning based on gender since the significant level (.423) is greater than 0.05.

Table 1. Results for research question: what is the perception of early childhood education lecturers on the use of virtual learning in ECE?

S/No	Items	Mean	Remarks
1	I feel confident in my ability to effectively use virtual learning technology in my teaching	2.65	Agreed
2	Virtual learning technology supports the delivery of early childhood education curriculum and activities	3.15	Agreed
3	Virtual learning technology enhances student engagement and learning outcomes in early childhood education	3.60	Agreed
4	I have received adequate training and support for using virtual learning technology in my teaching	2.70	Agreed
5	Virtual learning technology has positively impacted the relationships I have built with my students	3.05	Agreed
6	There are important factors to consider when using virtual learning technology in early childhood education	2.20	Agreed
7	Virtual learning technology has improved the assessment of students learning in early childhood education	3.15	Agreed
8	I believe virtual learning technology has the potential to improve early childhood education in the long term	2.95	Agreed
9	I feel more confident in my ability to effectively use virtual learning technology in teaching	2.60	Agreed
10	I believe virtual learning technology can improve not only ECE but also education as a whole	3.05	Agreed

Table 2. Summary of independent sample t-test showing the difference in the perception of early childhood education lecturers on the use of virtual learning based on gender.

Gender	N	Mean	Std. Deviation	T	Df	Sig.	Remark
Male	33	29.33	2.533	0.087	58	0.423	Not significant
Female	27	28.81	2.405				

Table 3 shows the difference in primary school teachers' competence level in early identification of gifted children based on teachers' qualifications. The difference in primary school teachers' competence level in early identification of gifted children based on teachers' qualification ($F_{(3,56)} = 0.961$; $P > 0.05$). Since the significant value is greater than 0.05, the hypothesis is therefore not rejected in the light of the result. Summary of the findings are in the following:

- (i) Early childhood education lecturers had positive perceptions of the use of virtual learning in ECE
- (ii) There is no significant difference in the perception of early childhood education lecturers on the use of virtual learning based on gender
- (iii) There is no significant difference in primary school teachers' competence level in early identification of gifted children based on teachers' qualification

The study revealed that early Childhood Education lecturers had a positive perception of the use of virtual learning in ECE. It was shown that childhood education lecturers had positive on the use of virtual learning. This is aligned with the finding by Voogt *et al.* (2019) that teachers are still having difficulty integrating technology into teaching even though they have many years of experience in teaching. However, this study demonstrates that teachers' acceptance is based on their readiness, perceptions of the usefulness, and ease of using the

VLE in teaching. This finding is also echoed by Joo (2018) and Mazman akar (2018) who reported that the teachers' acceptance is based on their own belief and readiness to use as well as the technological part itself such as the ease of use and usefulness. Hence, the teacher will develop the intention to use technological tools such as VLE in their teaching which is aligned with TAM. The study also revealed that gender and years of teaching experience had no significant difference in the perception of early childhood education lecturers on the use of virtual learning.

4. CONCLUSION

Overall, the data suggest that early childhood education lecturers in Kwara State, Nigeria have a positive perception of the use of virtual learning in ECE. However, there are concerns about the practicality and effectiveness of virtual learning in the context of Kwara State, which should be addressed by researchers and policymakers. Additionally, future research should address the concerns raised by some respondents regarding the research instrument's validity and item formulation. The study recommended educational institutions adopt virtual platforms and channels that meet the needs and interests of students, which should have an interactive and friendly approach for both the student and the teacher. These dissemination channels should serve as means for the student to provide their perception about their professional development, in this way, the authorities in charge must take certain.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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