

CHALLENGES OF VIRTUAL LEARNING AMONG PRIMARY SCHOOL PRE-SERVICE TEACHERS IN KWARA STATE

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Abstract

The outbreak of COVID-19 altered the narrative whereby significant numbers of university in the country are now practicing virtual learning. Against this background, the study investigated challenges of virtual learning among primary school pre-service teachers in Kwara state. Descriptive research design of survey type was adopted in this study with a population of 911 childhood education undergraduates out of which multistage sampling technique was employed to select 455 undergraduates from the population as respondents for the study. A researcher-deigned questionnaire was used for data collection. The instrument was adjudged reliable with a score of $\alpha=0.80$. The data collected were subjected to descriptive and inferential statistical analysis of frequency, percentage, range, mean, standard deviation, independent t-test. The findings of the study revealed that the challenges experienced by primary school pre-service teachers include: high cost of internet, inadequacy of electricity supply, poor network, delayed visualization of messages communicated on platform, among others. There is no significant difference in the challenges of virtual learning among childhood education undergraduates on the basis of gender; but there is a significant difference on the basis of school proprietorship in Kwara state. Conclusion was raised that, education stakeholders in Nigeria should see virtual learning as a future of the education system of the country.

Keywords: pre-service teachers, learning, virtual learning, challenges

INTRODUCTION

A pre-service teacher is an in-school person enrolled in a teacher preparation programme pursuing certification to work in public schools or private institutions. To obtain a teaching licence, they must meet specific degree requirements, including academic coursework and practical field experience. These individuals have completed a course or programme before starting their teaching responsibilities and have not yet fulfilled all necessary criteria for full certification.

Learning takes place when there is a permanent change in behaviour: the change is affirmed to be a product of an action or inaction. This implies that a permanent relative transformation in human behaviour, a swing in viewpoint resulted from the attainment of a novel ability, the understanding of a controlled principles, or the adjustment of an individual's attitude, a comparatively continuing alteration typically brought about on reason, a means via which new skills are acquired for either self-improvement or societal development. Louwrens and Hartnett (2015) submitted that learning is an individual, complex, and indescribable process as well as a multifarious psychosocial engagement. This implies that learning is a product of human actions. Learning is innately satisfying and empowering, opening up new worlds of experience and expertise. It is an instinct of living creatures which is usually a matter of great attention for education stakeholders such as learners, government, parents, and non-governmental bodies. More so, learning in an established institution is day-by-day taking a new look due to the advancement in information and communication technology which has positively affected the pedagogical process by birthing a learning mode called virtual learning.

Virtual learning is also known as e-learning, computer-based instruction, technology-delivered instruction, computer-assisted instruction, technology-based instruction, simulation games and computer-based simulation. Therefore, the learning mode refers to a learning situation that does not require the physical presence of both the students and the lecturers in a lecture room. Costley and Lange (2016) opined that virtual learning is a cycle where learners communicate with one another, teachers and materials by means of the web. The mode encourages tasks in a self-guided learning atmosphere. As such, the students enjoy the autonomy of attending the class as found pleasing to them as opposed to the traditional settings. 2979485 That is, the freedom to decide their feasible study time, complete their studies at their own pace, propagates the idea of self-directed learning which implies that the students have the power to manage and monitor the contextual and cognitive aspects of their personal learning. Implicatively, the mode was designed with the independent learner in mind (Jamal, 2014).

Costley and Lange (2016) (Jamal, 2014). Bell and Federman (2013) reported that virtual learning can deliver instructions effectively in postsecondary educational institutions. However, its incorporation requires internet and broadband connectivity with proper planning, organizing, monitoring, and controlling. The various digital technologies also support the mode and provide dynamic and flexible learning environments (Cantoni, Cellario, & Porta. 2004). Stalling (2002) submitted that virtual learning has gained much prominence at national and international settings,

especially in the education sectors (Stalling, 2002). Nevertheless, achieving the essence of the incorporation relies immensely on the challenges experienced by both the implementers 'lecturers and pre-service teachers.

Challenge is a situation likely to weaken or strengthen phenomena. Zhong (2020) submitted that poor access to technology or the internet poses a challenge to students' attitude towards participation in the online classes. Similarly, Dutta and Smita (2020) identified issues concerning online studies which include limited access to the internet, high cost of internet, unavailability of electronic devices, and students' computer literacy level. Also, Alvarez (2020) reported poor internet access, financial constraints, and lack of technological devices as the demanding challenges among learners when exposed to emergency remote learning. Mohammed, et al (2020) also reported that the barrier of infrastructure and network coverage in remote areas may lead to educational inequity in virtual learning.

On the fact that the traditional learning mode (face-to-face) has some challenges, virtual learning is also not a learning mode that is challenge-free. Therefore, Nur, Nor and Sharifah (2020) investigated online learning challenges during pandemic COVID-19 in Malaysian Higher Learning Institution. This study used an online survey carried out from March 2020 to April 2020 in Universiti Sultan Zainal Abidin (UniSZA), Terengganu, Malaysia. Student population in the Faculty of Business and Management, UniSZA consists of 1,932 students enrolling in diploma or undergraduate programs for the session 2019/2020. This study used a sample of 542 students which is conveniently selected from the faculty. Results of descriptive statistics are presented as frequencies and percentages to understand the challenges faced by the students in which it would provide some insights for effective online teaching and learning sessions during the pandemic. The results showed that the majority of students are not prepared for online learning, with low internet access being their greatest obstacle.

Ahmadi and Nourabadi (2020) conducted a study on implementation barriers in virtual education in Payame Noor University in Iran. Methods of data collection are methodological. The statistical population of this study comprise all Payame Noor University professors of Sabzevar, Nishabour, and Mashhad during the academic year of 2017- 2018. Findings of this study indicate that the main implementation hurdles to offering virtual education are lack of support from university administrators, lack of information and useful training for students, and lack of understanding on the part of higher education authorities about the system.

Mahyoob (2020) investigated challenges of e-learning during the COVID-19 Pandemic Experienced by EFL Learners. The study was done for English language learners in the Faculty of Science and Arts-Alula, Madinah, Taibah University, Saudi Arabia, at the undergraduate level. The sample included 184 students who were all majoring in English at the bachelor's degree level, with 85 male and 99 female. A questionnaire based on an online survey was created for the study and data collecting. There are 23 multiple-choice, yes/no, and open-ended questions in the survey-based questionnaire. The validity of the study was examined using a descriptive statistical method.

The main issues that affect and have an impact on online EFL learning during COVID-19 are determined to be connected to technical, academic, and communication difficulties.

Khan, et al (2021) studied on school students' perception and challenges towards online classes during covid-19 pandemic in India: an econometric analysis. Through the use of a Google Form Questionnaire, 385 Delhi-based secondary school students in grades 8 to 12 comprised the respondent sample. The study was conducted in the months of January and February 2021. Statistical techniques, such as Descriptive Statistics, Chi-Square Test, Factor Analysis, Reliability Test and Logistic Regression, were used for analysing the data. The outcome of the Logistic Regression analysis demonstrates that factors such as Internet speed, prior ICT knowledge, family income, mother's educational background, and room availability have a positive influence on online classes. The study's results showed that, on the whole, students view online classes favourably throughout the pandemic in order to maintain their academic growth. However, they ran into a number of difficulties when taking online classes.

Elsa and Eka (2020) investigated teacher's challenges towards online learning in pandemic era. The participants of this research were fourteen English teachers from various educational levels in South Kalimantan. Twelve open-ended surveys created using Google Forms were the main study's instruments. According to the research's findings, the majority of teachers concur that the difficulties in implementing online learning are related to its facilitation, such as internet access, quotas, living arrangements, and the process of online learning itself, like teachers' limited use of technology to create engaging online learning activities.

Dorothy and George (2016) investigated the challenges affecting adoption of e-learning in public universities in Kenya. This study used a descriptive survey methodology. This study adopted a multi-stage sampling procedure. Data were gathered through questionnaires administered to 420 instructors and 210 students, and were then analysed using simple descriptive statistics. The data were analysed using descriptive statistics, which includes means, frequencies, and percentages. Pie charts, graphs, and tables were used to show the results. Heavy workloads were ranked by lecturers as the biggest obstacle to the adoption of e-learning, followed by poor Internet connectivity, refusal to grant copyrights for developed e-learning modules, limited ICT skills, a lack of incentives, a lack of computers and laptops, inadequate computer labs, and a lack of time for online interaction. In contrast, students identified a lack of Internet access as their top challenge, which was then ranked below by a lack of computers and laptops, inadequate computer labs, a lack of ICT expertise, and a lack of time for online participation.

Hadhrami and Saadi (2021) carried out a study on the advantages and challenges of e-learning during covid-19 pandemic in Omani schools from parents' perspectives of cycle two schools (5-9). All the 3000 parents of students in grades (5-9) studying in Al Batinah South Governmental schools in Sultanate of Oman were included in this study. The study sample was 346 parents of both genders. Through the use of an online questionnaire and a random sample of parents, information from 346 parents was gathered. The parent's perceptions on the benefits and

drawbacks of online learning were gauged through a questionnaire. Both descriptive and inferential statistical tools were used to analyse the data, and test the hypotheses raised. The survey found that the parents of the students were interested in e-learning for their kids. For instance, e-learning makes it easier for their kids to use contemporary educational tools and to constantly have access to recorded videos of their daily lessons. But study also looked at some of the hurdles they faced when supporting their kids' online learning, including technical difficulties caused by network restrictions and practical difficulties caused by the difficulty of time management

Christian, et al (2020) carried out a study on engineering students' virtual learning challenges during COVID-19 pandemic lockdown: a case study. With a sample size stratified by level of study, a survey instrument with 17 items was created and given to the students online. 5,166 students in total responded mostly during the nationwide total lockdown. Students in Nigeria had many difficulties with virtual learning due to issues with the power supply, including unpredictable power supply, poor quality power supply, and bad internet access. With a sample size stratified by level of study, a survey instrument with 17 items was created and given to the students online. 5,166 kids in total reacted mostly during the nationwide total lockdown. Students in Nigeria had many difficulties with virtual learning due to issues with the power supply, including unpredictable power supply, poor quality power supply, and bad internet access.

Bwire, et al (2020) researched on online learning challenges in academia: The case of Uganda. This research used a questionnaire with both open-ended and closed-ended questions. Data was collected from five public universities in Uganda, where questionnaires were purposively issued by the researcher to teachers (lecturers) who indicated that they had good knowledge in pedagogy. The results show that one of the major challenges of online learning is the lack of skills by teachers to design online courses.

Yousaf, et al (2021) investigated students' attitude towards online classes at undergraduate level in Pakistan. Every student of Division of Education Township Campus Lahore constituted the population of the study. From the population, simple random sampling technique was used to select 100 students as the sample of the study. A researcher-designed questionnaire was used for data collection. The objectives of the study included exploring student's attitudes toward online learning; distinguishing student's interest in online and on-campus learning; and examining the effects of online classrooms on the teaching-learning process. Hence, findings of the study revealed that there is no significant difference between the positive attitude of male and female students towards online classes at the undergraduate level ($t(97) = .812, p = .066.$); and there is a positive attitude of students towards online classes at the undergraduate level ($p = .000$).

Muhammad and Kainat (2020) investigated online learning amid the COVID-19 pandemic: students' perspectives. The students were surveyed to discover their perspectives about the adoption of virtual learning in the country. The findings of this research showed that virtual learning cannot achieve desirable results in developing countries like Pakistan. The reason lies in the fact that a vast majority of students cannot access the internet because of technical as well as

financial matters, lack of face-to-face interaction with the instructor, response time, and the absence of classroom socialization.

Unger and Meiran (2020) explored 82 students' attitudes towards the quick shift from in-class learning to virtual learning during the current epidemic crisis. The researchers examined the students' position on inaccurate information in media, concern towards distance learning, knowledge of the sudden start of the disease, and level of readiness for this disease. The findings showed that the majority of students (91.5%) indicated that virtual learning would not be similar to in-class learning. They also showed that 98.8% of the students had viewed some inaccurate information on COVID.19 in media. In addition, 75.6% of the students responded that they had somewhat anxiety towards the rapid shift of the disease towards virtual learning.

Niwaz, et al (2019) examined many of the challenges faced by Pakistani higher institution students that can hamper success with virtual learning. In the section he titled "personal circumstances," he listed family and professional commitments as well as poor time management as the main barriers to successful outcomes. In the "teacher-related issues" section of his study, he discovered that students were particularly concerned about insufficient teacher participation, timely advice from teachers, and ineffective course content and instruction. Examining course assessment tools like tests and homework fell under the final category, which he calls "assessment and evaluation issues." He also discovered that students' views and attitudes regarding online courses were significantly harmed by teachers' and school systems' complete absence of effective measuring instruments.

Ramij and Sultana's (2020) study of Bangladesh's response and preparation for the challenges. According to him, the majority of students in Bangladesh face substantial obstacles due to issues with the country's basic infrastructure, an acceptable online learning environment, student access to ICT and the internet, and study tools. He continues by saying that "uncertainty exists in our educational sector" and referring to the situation in Bangladesh as a "painful truth." According to a study of Ghana's problems (Adarkwah, 2021), the COVID.19 situation has led to the government implementing an "education anytime anywhere for everyone" program.

Zia (2020) reported that students had trouble in technology adaptability as a consequence to the insufficient time accorded them to get acquainted with the novel mode. Dushkevych et al. (2020) reported that poor network connection and virtual learning platforms imperfection are among the drawbacks of virtual learning for learners. In this study, field research was conducted to determine which factors affect students' attitudes towards virtual learning. The questionnaire was developed to collect data about factors that influence attitudes towards virtual learning. The study cohort consisted of 286 students. Three factors were identified using principal component analysis: virtual learning usefulness, ease of use, and content design. Regression analysis was conducted to determine the strength of the factors influencing attitudes towards virtual learning. All factors had a significant influence on attitude towards virtual learning. Usefulness of virtual learning had the strongest impact on students' virtual learning intention (Marija, et al 2017).

However, the previous studies found to be related to this research did not investigate the variables of gender, school type and challenges together in a study. More so, except Kennedy and Victor (2020) whose research was conducted in Kwara state, and engaged the entire Kwara State University students, others were carried out outside the state, and none of the previous studies available to this researcher was found to have engaged both the federal and state university undergraduates most especially the primary school pre-service teachers together in a study concerning the gender, school type, and challenges of virtual learning. Thus, this is the gap in knowledge this study filled in by investigating gender, school type, and challenges of virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin.

Research Question

The following question was answered in the study:

1. What are the challenges of virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin?

Research Hypotheses

The following null hypotheses were tested in the study:

- H₀₁:** There is no significant difference in the challenges of virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin on the basis of gender.
- H₀₂:** There is no significant difference in the challenges of virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin on the basis of school proprietorship.

Methodology

The research design employed in this study was a descriptive research design of survey type. The choice of this design is based on the fact that it provides information about the characteristics within a particular field of study with the purpose of providing a picture of situations, as they naturally exist. This study investigated attitudes and challenges towards virtual learning among primary school pre-service teachers in Kwara. The geographical location covered by the study is Kwara state. Thus, the population for the study consisted of all primary school pre-service teachers in Kwara state, while the target population comprised all the 236 primary school pre-service teachers of Kwara State University (KWASU), and 674 primary school pre-service teachers of University of Ilorin, Ilorin (Academic Offices of the respective universities, 2021). Hence, multistage sampling technique was employed to select sample for the study. In the first stage, proportionate sampling technique was used to select 50% (337) of primary school pre-service teachers of University of Ilorin, and 50% (118) of primary school pre-service teachers of Kwara State University (KWASU) representing a total of 455. In the second stage, simple random sampling technique was used to select the 455 undergraduates as the sample for this study.

The instrument for data collection was a structured questionnaire devised by the researcher. The instrument was in two (2) sections: section A elicited information on the demographic data of the respondents such as gender while section B were structured in three-Likert format scale of Always, Sometimes, Rarely. To establish the degree of consistency of the instrument (i.e, reliability of the instrument), copies of the instrument were administered to some set of pre-service teachers who were not part of the respondents of the study. The administered questionnaire was analysed using Cronbach Alpha. Hence, the result of the analysis of the scale gave the reliability of $\alpha=0.80$. Therefore, the scale was adjudged reliable enough to be used in this study. Descriptive statistical tools of frequency, percentage, mean and rank order were employed for analysing the demographic information of the respondents, and answering the research questions raised, while inferential statistical tools of independent t-test was used for testing all the hypotheses raised at a 0.05 level of significance.

RESULTS

Demographic Distribution of the Respondents

Table one to three featured the personal data of the respondents analysed using descriptive statistical tools of frequency and percentage.

Table 1: Distribution of the Respondents based on Gender

Variable	Options	Frequency	Percentage (%)
Sex	Male	158	34.7
	Female	297	65.3
	Total	455	100.0

Table 1 reveals that out of the 455 primary school pre-service teachers engaged in the study, 158 representing 34.7% of them were males, while 297 representing 65.3% of them were females. Hence, female primary school pre-service teachers participated more in the study than the males.

Table 2: Distribution of the Respondents based on School Proprietorship

Variable	Options	Frequency	Percentage (%)
School Proprietorship	Federal	337	74.1

State	118	25.9
Total	455	100.0

Table shows that school proprietorship distribution of the respondents. The table presented that 337 representing 74.1% of the childhood education undergraduates engaged were from federal university in Kwara state, while 118 representing 25.9% were from state university in the state. This implies that majority of the respondents were from the federal university in Kwara state.

Answering of Research Question

Research Question: What are the challenges towards virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin?

The question was answered on a benchmark of 2.0: this implies that if the calculated mean of an item in the table below is equal or greater than 2.0, that means the item is among the primary school pre-service teachers' challenges towards virtual learning, however if otherwise, that indicates that the item is not among the challenges.

Table 3: Mean, Standard Deviation and Rank Order of the Responses on the Challenges of Virtual Learning

S/N	ITEMS	Mean	Std.	Rank
4	High cost of internet	2.57	.55	1 st
3	Inadequacy of electricity supply	2.47	.60	2 nd
1	Poor network	2.27	.50	3 rd
12	Delayed visualization of messages communicated on platform	2.17	.44	4 th
13	The sound is not clear	2.10	.63	5 th
2	Inadequate ICT knowledge	2.09	.60	6 th
7	Holding chat sessions, responding to emails are more labour and time consuming	2.07	.60	7 th
14	Difficulty concentrating	2.01	.65	7 th

6	Getting enough time to study through virtual means is a burden	2.00	.51	9 th
11	The learning environment is not compatible with my learning style	2.00	.70	9 th
8	Contacting colleagues for discussion is difficult due to limited time	2.00	.60	9 th
9	Inadequate communication between lecturers and students	1.96	.60	12 th
15	Expression of oneself is hectic in terms of writing through online	1.95	.63	13 th
5	Lack of access to electronic devices	1.94	.63	14 th
10	Not user friendly	1.84	.80	15 th
Grand Mean		2.10		

Table 3 presents the mean, standard deviation and rank order of the responses on the challenges towards virtual learning among primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin . In tandem with the mean distributions in the table above, it is clear cut that majority of the items are among the primary school pre-service teachers' challenges towards virtual learning in Kwara state with a grand mean of 2.10 which is slightly greater than the benchmark. Nevertheless, among the items reported not to be the challenges are inadequate communication between lecturers and students, Expression of oneself is hectic in terms of writing through online, Lack of access to electronic devices, and Not user friendly, while the identified challenges include: high cost of internet, inadequacy of electricity supply, poor network, delayed visualization of messages communicated on platform, among others.

Hypothesis Testing

One hypothesis was raised in this study which was tested using independent t-test at a 0.05 level of significance through the Statistical Package for Social Sciences, version 20 (SPSS 20).

Hypothesis 1: There is no significant difference in the challenges of virtual learning among primary school pre-service teachers on the basis of gender.

Table 4: Mean, Standard Deviation and t-test table showing difference in the challenges of virtual learning on the basis of gender

Variable	Options	N	Mean	Std.	Df	Sig.	Remark
Gender	Male	158	31.20	3.20	453	.23	Not Significant
	Female	297	31.61	4.20			

Table 4 above shows the independent t-test result of the difference in the challenges of virtual learning among primary school pre-service teachers on the basis of gender. The table reveals that Male had a mean score of 31.20 with a standard deviation of 3.20, while Female had a mean score of 31.62 with a standard deviation of 4.20 along with a calculated significant value of .23 which is greater than the constant value of 0.05. Therefore, based on the result, conclusion is raised that, there is no significant difference in the challenges of virtual learning among primary school pre-service teachers on the basis of gender in Kwara state. Thus, with reference to gender, the primary school pre-service teachers of Kwara State University (KWASU), and University of Ilorin, Ilorin expressed the same challenges of virtual learning.

Hypothesis 2: There is no significant difference in the challenges towards virtual learning among childhood education undergraduates on the basis of school proprietorship.

Table 5: Mean, Standard Deviation and t-test table showing difference in the challenges towards virtual learning among childhood education undergraduates on the basis of school proprietorship

Variable	Options	N	Mean	Std.	Df	Sig.	Remark
School Proprietorship	Federal	337	30.86	3.77	453	.00	Rejected
	State	118	33.14	3.66			

Table 5 above reveals the independent t-test result of the difference in the challenges towards virtual learning among childhood education undergraduates on the basis of school proprietorship. The table reveals that Federal had a mean score of 30.86 with a standard deviation of 3.77, while State had a mean score of 33.14 with a standard deviation of 3.66 along with a calculated significant value of .00 which is less than the constant value of 0.05. Therefore, based on the result, conclusion is put forward that there is a significant difference in the challenges towards virtual learning among childhood education undergraduates on the basis of school proprietorship in Kwara state.

Discussion of the Findings

The analysis carried out along with the objectives of this study birthed some results which were discussed in comparison with the reports of the previous studies. Hence, among the findings is that, among the items reported not to be the challenges are inadequate communication between lecturers and students, expression of oneself is hectic in terms of writing through online, lack of access to electronic devices, and not user friendly, while the identified challenges include: high cost of internet, inadequacy of electricity supply, poor network, delayed visualization of messages communicated on platform among others. With high cost of internet as well as poor electricity supply it remains awkward to enjoy learning through internet, and since Nigeria is still a country where poor electricity supply is a major public discussion, the students tend to continue having the supply as a concern needed to be adjusted to pending the time it would be put to a rest.

The finding corroborates the submissions of Nur, Nor and Sharifah (2020), Elsa and Eka (2020), Shaikha and Najlaa (2021), Christian, Joseph, Stephen, Ismaila, Joseph, Sola, Abubakar and Elkannah, (2020), Dorothy and George (2016) that difficulties in implementing online learning are related to its facilitation, such as internet access, lack of Internet access, lack of computers and laptops, inadequate computer labs, lack of ICT expertise, and lack of time for online participation, quotas, living arrangements, and the process of online learning itself, like teachers' limited use of technology to create engaging online learning activities. However, Bwire, Bagarukayo and Muyinda, (2020) and Adnan and Anwar (2020) submitted that the major challenges of online learning is the lack of skills by teachers to design online courses and a lack of face-to-face interaction and slow response time from the instructors.

In the same vein, the finding revealed that there was no significant difference in the challenges of virtual learning among primary school pre-service teachers on the basis of gender in Kwara state. This indicates that both the female and male primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin experience symmetrical challenges towards the learning mode. The finding supports report of Yousaf, Rafique and Mahmood (2021), Tariq, Aroona, Nisar, and Faryal's (2018) and Ishmirekha (2017) that there was no significant difference in the challenges experienced by male and female students towards online classes. The finding was negated by the submission of Masry-Herzallah and Stavisky (2021), Rafiq, Hussain, and Abbas' (2020), Zabadi and Al-Alawi (2016), Gunamala and Sneha (2013) that there was no significant association between gender and attitude toward computers and e-learning.

Furthermore, it was discovered that there is a significant difference in the challenges towards virtual learning among childhood education undergraduates on the basis of school proprietorship in Kwara state. The findings is in support of the reports of previous scholars which have it that in public universities in Kenya heavy workloads, adoption of e-learning, followed by poor Internet connectivity, refusal to grant copyrights for developed e-learning modules, limited ICT skills, a lack of incentives, a lack of computers and laptops, inadequate computer labs, and a

lack of time for online interaction. In contrast, students identified a lack of Internet access as their top challenge, which was then ranked below by a lack of computers and laptops, inadequate computer labs, a lack of ICT expertise, and a lack of time for online participation (Dorothy and George, 2016).

Conclusion

In line with the findings of the study, the researcher concluded that primary school pre-service teachers in Kwara State University and University of Ilorin, Ilorin have challenges indicated to virtual learning, and the challenges were the same on the basis of gender, but different with reference to school proprietorship. Therefore, education stakeholders in Nigeria should see virtual learning as a future of the education system of the country.

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