ASSESSMENT OF READINESS OF LECTURERS IN COLLEGES OF EDUCATION IN OYO FEDERAL CONSTITUENCY OF OYO STATE, NIGERIA, TO TEACH IN VIRTUAL CLASSROOMS

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Abstract

The objective of this study is to assess the readiness of lecturers in Oyo Federal Constituency of Oyo State, Nigeria, to teach in a Virtual Learning environment. Five research questions and four hypotheses guided the study. 500 lecturers were randomly selected from two government owned colleges of education within the constituency and Google form questionnaire were sent to them online. 72 forms were returned and the researcher analyzed the data collected relying on 10% to 30% formulae of Mugenda and Mugenda (2003). The results show that Institutional factors significantly affected the success of virtual classroom, Lack of virtual learning skills significantly affected the success of virtual classroom, How the quality of virtual learning was measured did not significantly affect the success of virtual classroom, and Attitudes of lecturers towards teaching in a virtual classroom significantly affected the success of virtual classroom. The study concluded that colleges of education in Oyo Federal Constituency of Oyo State are ready to embrace virtual learning and the lecturers are favorably disposed to the learning option. It was recommended that colleges of education that are running part-time courses should institute open distance learning option to replace their part-time courses.

Keywords: *Institutional factors, Attitudes, Google form, Virtual learning, Federal constituency, Open distance learning.*

Introduction

Institutional strategies for the development and use of technologies in teaching and learning process became inevitable during pandemic, at which point the instructors and learners can no longer come together in a traditional classroom setting. Virtual classroom or virtual learning became an option for effecting teaching and learning. Virtual learning allows the teacher and the learner to shift from a traditional classroom setting to learning via the web. Ronald (2012), enjoined that the method of virtual learning is popular, and continues to spread social media, smartphones, and tablets. As well as building on the new media habits of the increasingly wired society, virtual learning has proven to be very attractive to students.

Virtual Classroom had been around for quite some time. According to Yan and Song (2013), it was first adopted in certain fields in order to communicate and avoid the long journey. Then its application extends rapidly. The authors identified three reasons for the rapid expansion: Firstly, the internet provides an interaction between human and the virtual world. People can decide what they want to do and what they want to say. Secondly, the educational theory is developing too. The educators come to an agreement that the traditional classroom is not good because it is teacher-centered and it should be learner-centered. Thirdly, the virtual classroom is effective to ensure education equality, especially for those who are poor, or live in a remote area, or do not have regular time to attend school education. If they have access to the internet, the virtual classroom will provide them with the best teachers and the same courses with other learners. Thus, education equality is ensured.

Hsu, Marques, Khalid and Alhalabi (1999) cited in Nantha and Maheswari (2011), defined the virtual classroom as a system that provides the same opportunities for the teaching and learning process, beyond the physical limits of the traditional classroom walls. The authors submitted that, Virtual classroom implementations via an online learning mode are typically web-based.

However, Kathleen, Wil, Ellenand Howard (2008), summarized virtual classroom as an instrument for conducting live classroom-like sessions over the internet. In it, students and tutor(s) can communicate using voice, video, chat and whiteboard tools. They also have facilities like application sharing, polling, breakout sessions and quizzes. It allows the tutor and students to participate in real time lessons and discussions. Students can ask questions, draw on the whiteboard, and participate in breakout sessions. Almost everything that can be done in a real classroom can be done in a virtual classroom. Moreover, the whole classroom session can be recorded and made available for review afterwards.

Virtual classroom, therefore, can be defined as a learning session that is devoid of physical interaction between the tutor and the learner and in which the activities are carried out using digital learning tools on a secure internet network. The digital tools allow lessons to be conducted by the tutor in an interactive manner and tutor and learners to collaborate effectively, cutting off any geographical barriers.

Statement of the Problem

The COVID-19 pandemic has much impact on the education system, not only in Nigeria, but in the world in general. According to Shivangi (2020) the sudden outbreak of a deadly disease called Covid-19 caused by a Corona Virus (SARS-CoV-2) shook the entire world. The World Health Organization declared it as a pandemic. This situation challenged the education system across the world and forced educators to shift to an online mode of teaching overnight.

Lockdown and social distancing were the immediate measures that were adopted to stem the spread of the pandemic. These measures led to the closure of higher education facilities across the country. Many educational institutions in Nigeria opted for virtual learning to assist the learners. However, the shift to virtual learning mode of teaching, were not embraced by colleges of education in Nigeria. It was observed that not even a single college of education in Nigeria announced her readiness to conduct classes on a virtual platform. Based on this background this study seeks to access the readiness of lecturer in Colleges of Education in Oyo Federal Constituency of Oyo State, Nigeria to teach in a virtual classroom.

Purpose of the Study

The purpose of this study is to assess the readiness of the teachers in college of education in Oyo Federal Constituency of Oyo State to embrace teaching in a virtual classroom setting.

Research Hypothesis

The following hypothesis had been formulated and tested for this study.

1. Institutional factors will significantly affect the success of virtual classroom.
2. Lack of virtual learning skills will significantly affect the success of virtual classroom.
3. Predictions on how the quality of virtual learning is measured will significantly affect the success of virtual classroom.
4. Attitudes of lecturers towards teaching in a virtual classroom will significantly affect the success of virtual classroom.

Review of Related Literatures

The following are the works of few authors on the virtual learning paradigm:

Anekwe (2017), adopted a descriptive approach to examine the impacts of virtual classrooms on students' learning. The study was carried out in two federal and two state universities in the South-East zone of Nigeria. Four research questions and four hypotheses guided the study. The sample comprised of 280 federal university students and 226 state university students given a total sample of 506 respondents. Stratified random sampling due to ownership (federal and state) was used. The data collected were analyzed using means for research questions and independent sample t-test to test the hypotheses at 0.05 level of significance. The results showed among others that virtual classrooms have positive impacts on the students of federal and state universities, they reported positively on their continued support and preparedness for virtual classrooms. Based on the findings, the recommendation were that many more students should be made to be more aware of the impacts of the virtual classrooms. They should also be motivated to be participating more in virtual classrooms.

Bigné, Badenes, Ruiz, and Andreu (2018), opined that teachers need to have a series of skills related to the command of digital technologies and an understanding of students' affective and behavioral states: and to then apply appropriate communication strategies to deliver course content and prepare students for this innovative learning approach. This study reviews educational research literature on virtual classrooms, teacher behavior, and student engagement to establish a theoretical model that explains the type of abilities which teachers must develop to achieve student engagement in academic activities. These abilities are classified in three categories: technical, affective, and communicative. Furthermore, several learning theories (objectivism, constructivism and connectivism) were reviewed to conduct an appropriate Virtual Classroom design and implementation that can adapt to each student's specific learning needs. Future study lines, as well as empirical proposals to go deeper into these theoretical propositions, were presented.

Wajeeh and Juhaina (2020) studied students' identities when learning high-level mathematics in the virtual classroom. Fourteen secondary school students participated in the research. Data were collected using interviews with the participants before and after participating in the virtual mathematics classroom. Data analysis was done using inductive and deductive content analysis, where the deductive analysis utilized the narrative framework developed by Sfard and Prusak (2005). The research results indicated that the virtual identities of high-level mathematics students were impacted by three factors: the design of the virtual classroom, the teacher's interactions with the students, and the personal characteristics of the students. In addition, the research results indicated that students' identities, in terms of features and narratives, changed in the case of some students, but continued to be the same in the case of other students. The reasons behind the change or the absence of change were the three above factors and their interaction. It is concluded that the virtual course design needs to take into consideration the interaction aspect of students' learning alongside factors that encourage their substantive learning.

Noawanit (2014), in his research studied e–learning system in virtual learning environment to develop creative thinking for learners in higher education. This e–learning system was built up from theories, principles and research in educational background and then it was tested with thirty undergraduate students in Social Sciences and Humanities disciplines.

The quantitative data was statistically analyzed using mean, standard deviation, and t–test. For the qualitative data, they were collected by attitude questionnaire. The improved system was approved by the groups of e-learning system and creative thinking skills experts as detailed in the article.

Dilaniand Gedera (2014), attempted to develop a better understanding of students' experiences of learning with the specific online learning technology of Adobe Connect virtual classroom. The study was conducted in a university in New Zealand using a case study method. With activity theory as its research framework, the research methods of this study include individual interviews, online observation and analysis of other relevant documents. This article included some of the findings of the research and a discussion on how the synchronous technology—Adobe Connect virtual classroom, used in an online learning environment affected students' active participation in e-learning activities. The article also offers some suggestions that can be of use to instructors who teach online courses.

Minranda, Carlos, and Paulo (2013) focused on the problems of the use of virtual learning environments in a higher education institution in the north of Portugal. In this study, scientific and pedagogical background of virtual learning environments, were analyzed using responses obtained from an online questionnaire conducted to 536 subjects, consisting of 347 students, and 189 teachers. Results showed that the majority of teachers and students access the institution's virtual environment on a daily basis. However, there are significant differences between teachers who have intermediate computer skills and those who have basic skills, as the percentage of teachers with intermediate skills accessing the virtual learning environment every day is higher than that of the teachers who have basic computer skills. No significant differences were found among students as far as the relation between virtual learning environment access and computer skills is concerned.

Garry (2011) explored the affordances and limitations of an online virtual classroom, Adobe Connect Pro, when used in the learning programmes of two groups of undergraduate and postgraduate education students. Results indicated that while both groups gained value from using the classroom, they also found it a completely new environment, and one to which many had trouble transferring the interaction and communication skills developed in other contexts. The reasons for this related to three specific areas of knowledge – *technical, procedural* and *operational,* that were identified as being critical to student performance in this environment. The study suggested that educators and course designers need to embed strategies into their online offerings to enable students to develop these, if they are to gain substantial benefits from the availability of virtual classrooms. Additionally, the study identified that when making design decisions about online learning environments, it is very much a matter of *horses for courses* when selecting tools for specific purposes. While the virtual classroom proved useful for developing social connection and a sense of community, it may not be so beneficial for supporting deeper learning.

Methodology

Descriptive research design of survey method was used to assess the teaching in virtual learning environment by teachers in colleges of education within Oyo Federal Constituency of Oyo State, Nigeria. The research instrument was a 4-point Likert scales (ranging from strongly agree to strongly disagree) questionnaire that was designed using Google Form. The sample of the study consists of 500 lecturers randomly drawn from the two government owned colleges of education in Oyo Federal Constituency of Oyo State (Emmanuel Alayande College of Education and Federal College of Education Special). The questionnaires were sent to Whatsapps numbers of selected lecturers.72 responses were received. The researcher used 10% to 30% formulae of Mugenda and Mugenda (2003) to use the 72 responses which is about 10% of lecturers in the two colleges of education in Oyo Federal Constituency of Oyo State.

Results

JASP statistical package has been used to analyze the result. JASP is an alternative to SPSS and it had been chosen because it is cheaper to obtain and user friendly.

Hypothesis 1: Institutional factors will significantly affect the success of virtual classroom.

Table 1: Factors that will significantly affect the success of virtual classroom.

	SA F(%)	A F(%)	D F(%)	SD F(%)
Institution will not support virtual learning	18(25.0)	13(18.1)	18(25.0)	22(30.6)
Monetary support to buy Data	34(47.2)	23(31.9)	4(5.6)	11(15.3)
Monetary support to purchase Devices	31(43.1)	23(31.9)	9(12.5)	9(12.5)
Technical Competency Of Lecturers	25(34.7)	28(38.9)	10(13.9)	7(9.7)
Pedagogical Competency of Lecturers	20(27.8)	31(43.1)	12(16.7)	7(9.7)
Bandwidth Volume	21(29.2)	33(45.8)	8(11.1)	8(11.1)
Electricity or power supply	37(51.4)	22(30.6)	8(11.1)	5(6.9)

Table 1 revealed that 55.6% of the respondents disagreed that institutions will not support virtual classroom. The table also shows that 79.1% and 75% of the respondents agreed that monetary supports are needed by the instructors to purchase both data and devices.

Again, the table showed that 73.6% and 70.9% of the respondents agreed that technical competences and pedagogical competences are needed for the success of a virtual classroom. 75% of the respondents agreed that the virtual tutors require high bandwidth volumes and 82% concluded that teaching in a virtual classroom require constant power supply to record great success.

Hypothesis 2: Lack of virtual learning skills will significantly affect the success of virtual classroom.

Table 2: Skills Needed For Virtual Learning

	SA F(%)	**A F(%)**	**D F(%)**	**SD F(%)**
Online Course Developers	33(45.8)	30(41.7)	5(6.9)	4(5.6)
Subject Matter Experts	28(38.9)	30(41.7)	5(6.9)	9(12.5)
Experience Lecturers	22(30.6)	34(47.2)	6(8.3)	10(13.9)
Quality Trainers	23(31.9)	41(56.9)	3(4.2)	5(6.9)

Table 2 shows that majority of the respondents or 87.5% agreed that online development skills and 80.6%respondents agreed that subject matter expertizes will be required for the success of a virtual classroom. The result also shows that majority of the respondents or 77.8% agrees that experience lecturers are needed and 88.8% believed that the lecturers must be well trained in order to achieve significant success of virtual classroom.

Hypothesis 3: How the quality of virtual learning is measured will significantly affect the success of virtual classroom.

Table 3: Predictions on how Quality of Virtual Learning will be measured

	SA F(%)	A F(%)	D F(%)	SD F(%)
Students performance will be low	6(8.3)	19(26.4)	21(29.2)	26(36.1)
Course curriculum will not be covered	7(9.7)	10(13.9)	24(33.3)	31(43.1)
Students satisfaction will be low	4(5.6)	23(31.9)	26(36.1)	19(26.4)
Virtual Classroom Better than Traditional	7(9.7)	16(22.2)	22(30.6)	26(36.1)

Table 3 shows that 65.3% of the respondents disagreed that student performance will be low, while 76.4% also disagreed that course curriculum will not be covered in a virtual classroom environment. Again, while 62.5% of the respondents disagreed that students satisfaction will be low, 66.7% of them disagreed that teaching in a virtual classroom is better than teaching in a traditional classroom setting.

Hypothesis 4: Attitudes of lecturers towards teaching in a virtual classroom will significantly affect the success of virtual classroom.

Table 4: Attitudinal Expectations of Lecturers

	SA F(%)	A F(%)	D F(%)	SD F(%)
Lecturers do not want virtual classroom	6(8.3)	13(18.1)	30(41.7)	23(31.9)
Lecturers-Learners relationship will reduce	14(19.4)	31(43.1)	8(11.1)	18(25.0)
It will be difficult to evaluate learners	8(11.1)	17(23.6)	23(31.9)	24(33.3)
Lecturers will not come to work again	4(5.6)	28(38.9)	26(36.1)	14(19.4)
Learners collaboration will reduce	6(8.3)	37(51.4)	18(25.0)	11(15.3)

Table 4 shows that 73.6% of the respondents disagreed that, lecturers do not want virtual classroom. The table also shows that 62.5% agreed that Lecturers-Learners relationship will be hindered while 59.7% agreed that Learner collaboration will equally reduce. 65.2% of the respondents disagreed that it will be difficult to evaluate learners. 55.5% of the respondents disagreed that lecturers will not come to class again while teaching in a virtual class is instituted.

Discussion of Results

All the factors that have been identified have been affirmed by the respondents as those that will significantly affect the success of virtual classroom. This is evident in their responses on Table 1 of the result section as 79.1% and 75% of the respondents agreed that monetary supports are needed by the instructors to purchase data and devices, 73.6% and 70.9% of the respondents agreed that technical competences and pedagogical competences are needed for the success of a virtual classroom, 75% of the respondents agreed that the virtual classroom tutors require high bandwidth volumes, and 82% of the respondents concluded that teaching in a virtual classroom require constant power supply to record great success.

Again, all the respondents confirmed that without virtual learning skills, the success of virtual classroom will be significantly affected. This is evident in their responses on

Table 2. For instance, 87.5% agreed that online development skills is required, 80.6% respondents agreed that subject matter expertize is required, 77.8% agreed that experience lecturers are needed, and 88.8% agreed that quality training is required by the lecturers in order to achieve significant success of virtual classroom. ‘

Furthermore, the findings show that how Quality of Virtual Learning will be measured will not significantly affect the success virtual classroom. For instance, Table 3 shows that 65.3% of the respondents disagreed that student performance will be low, 76.4% disagreed that course curriculum will not be covered in a virtual classroom environment, 62.5% of the respondents disagreed that students satisfaction will be low, and 66.7% of the respondents disagreed that teaching in a virtual classroom is better than teaching in a traditional classroom setting.

The findings also show that attitudes of lecturers will significantly affect the success of virtual classroom. Table 4 reveals that 73.6% of the respondents disagreed that lecturers do not want virtual classroom, 62.5% agreed that Lecturers-Learners relationship will be hindered, 59.7% agreed that Learners collaboration will reduce, 65.2% of the respondents disagreed that it will be difficult to evaluate learners, and 55.5% of the respondents disagreed that lecturers will not come to class again when teaching in a virtual classroom is instituted.

Conclusion

Virtual learning is a technology that will redefine and reshape teaching and learning processes in the near future as todays’ learners are ubiquitous in nature. The new generation learners want to receive instructional contents anywhere and anytime without any geographical barriers. This research has shown that lecturers in colleges of education in Oyo Federal Constituency of Oyo State are ready to embrace teaching in virtual classrooms if it becomes instituted by their respective institutions.

This work also concludes that colleges of education in Oyo Federal Constituency of Oyo State are ready to embrace virtual learning as the lecturers are favorably disposed to the learning option and will continue to come to work. Again, how Quality of Virtual Learning will be measured would not affect the success of virtual classroom.

Virtual classroom has become a reliable option during any pandemic or disaster that prevents teachers and learners to meet in a traditional classroom setting. It is also useful for open distance teaching and learning process, an area which is yet to be explored by most colleges of education in Nigeria.

Recommendations

Following the findings of this work, the researcher has recommended the following:

- ✓ That all colleges of education in Oyo Federal Constituency should incorporate virtual learning into their teaching and learning processes.
- ✓ That the colleges of education in Oyo Federal Constituency should institute open distance learning option in place of their part time courses.
- ✓ That the colleges of education in Oyo Federal Constituency should organize qualitative trainings on virtual learning tools for all their academic staff.

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