



## PERCEIVED ATTITUDE OF STUDENTS AND TEACHERS TOWARDS E-LEARNING IN SELECTED SECONDARY SCHOOLS IN EDUCATIONAL DISTRICT V

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### Author's History

Received: 03/08/2024  
Revised: 20/09/2024  
Accepted: 23/09/2024

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### *Abstract*

*This study investigated the perceived attitude of students and teachers towards e-learning in selected secondary schools in Educational District V, Ojo Local Government Area of Lagos State. The objectives of the study were to investigate the extent to which students' and teachers' perceptions of the e-learning method influence academic performance in the selected secondary schools, and to examine the relationship between e-learning and motivation for studies in the selected Secondary Schools. The study adopted a descriptive survey design to elicit responses from the respondents. Relevant data were obtained through the questionnaire and a stratified sampling technique was applied to select one hundred and thirty (130) students in Educational District V of Lagos State. Data were analyzed using the Frequency Distribution Analytical Method. The Chi-Square Method, Pearson Product Moment Correlation and T-test were used to test the hypotheses. The major findings of this study showed that Students' and teachers' perception of e-learning influences academic performance as students can easily read, view and listen to online academic programmes on personal computers, laptops, cell phones and other internet facilities. The findings also revealed that there is significant relationship between e-learning and motivation for studies in the selected Secondary Schools. The study concluded that, although there is a difference in the students' understanding of subjects between e-learning and classroom (face-to-face) learning methods, the difference is insignificant. The study recommended that there is need for the selected schools to provide adequate e-learning facilities to ease the challenges students encounter in the online learning process.*

**Keywords:** *Academic performance, E-learning, Classroom learning, Perceived attitude of students.*

## INTRODUCTION

The advancement of Information Technology (IT) and its influence on teaching and learning has increasingly generated academic discourse. In this 21<sup>st</sup> century; the use of latest technology has changed the traditional classroom learning method resulting to E-learning approach. This phenomenon simply means that one no longer needs to be located in a conventional classroom in order to be educated. E-learning, according to Sale (2018), is the use of electronic technology to deliver education and training applications, monitor learner's performance and report learner's progress. Samir and Hiren (2017) provided a more holistic view of E-learning as they viewed E-learning as the learning process formed by communicating with contents which is digitally delivered through electronic facilities and support. The critical attribute of E-learning the extensive use of ICT in enabling and assisting the reform of learning process. The term "E-learning" has been widely used in education especially during the COVID-19 outbreak that resulted in closure of schools in order to curtail the spread of the pandemic.

Indeed, as reported by UNESCO (2020), the closure of schools affected different strata of learners globally and Nigeria without exception. It is on record that above 191 countries applied total closure of institutions and about 1.7 billion learners were affected by this closure impacting about 98.4 percent of the world's student population (UNESCO, 2020). There is no gainsaying that preventive measures such as social-distancing and self-isolation have deepened the integration of new teaching and learning model which is alien to learners especially in the developing countries like Nigeria where considerable number of students lack access to E-learning facilities for virtual or online learning.

In spite of the challenges that act as impediments to effective e-learning method, researchers have consistently presented e-learning method as critical for innovative and modern learning approach. For instance, Hafiz, Yuanqiong, Junaid, Hafiz & Suhail (2020) established a link between e-learning and service quality (SERVQUAL) as it relates to students motivation and satisfaction. They tacitly stated that e-learning enhances service quality in the area of teaching and learning. Thus, the antecedent of students' satisfaction and motivation can be attained via e-learning method. The line of thought in this context is that e-learning facilitates the integration of service quality in teaching and learning process that results in students motivation and performance. Hafiz et al. (2020) emphasized on the significance of digital adoption in learning by establishing a link between e-learning and student's academic performance through student satisfaction and motivation. In another dimension, George and Lal, (2019) referred E-learning as the delivery of education through various electronic media, indicating that E-learning is an important factor focusing on the ease of student's education.

In the foregoing. Adedoyin and Soykan (2020) tacitly stated that e-learning involves the use of computers to aid the learning process. Thus, Adedoyin et al.(2020) described e-learning as a Computer Assisted Learning (CAL) method that enhances access to education to larger population. In another dimension, Elena, Svetlana, Natalia and Yana (2021) basically extended the scope of e-learning concept as encompassing ICT on websites, personal computers, portable PCs, mobile phones, learning management System (LMS), radio, and other forms that enhances teaching and learning. Generally, this learning method requires the application and usage of Information and communications technology (ICTs). Elena et al. (2021) described e-learning as a unifying term for explain various areas of the Network and the technology dimensions. Researchers have also argued that by removing the need for physical presence in the classroom, online learning has the potential to make education accessible to a much larger population, while accommodating the demands of a fast-paced and global society. Apparently, students and teachers' attitude toward online learning is a critical factor in a learning environment supported by online learning tools. Since e-learning is quite new to most students and teachers of public and private schools in Nigeria at large, their reactions and perception about it will differ in various ways.

Apparently, the issue that is generating public debate is the perception of students and teachers to e-learning method as most students and schools lack facilities which hindered them to partake successfully in online teaching like they do in the developed countries. Again, the motivation students derive from direct interaction from their teachers is a factor that is likely to influence their perception towards e-learning method. Since e-learning is quite new to most students and teachers of public and private schools in Nigeria at large, there is no

doubt that their reactions and perception about e-learning may differ in various ways. Hence, this study seeks to investigate perceived attitude of students and teachers towards e-learning in selected secondary schools in Educational District V.

## Research Hypotheses

The following three hypotheses were generated for testing in this study.

H<sub>01</sub>: Students' and teachers perception of e-learning method of learning does not influence academic performance in the selected secondary schools in Ojo Local Government Area.

H<sub>02</sub>: There is no significant relationship between e-learning and motivation for studies in the selected Secondary Schools.

H<sub>03</sub>: There is no significant difference in the students' understanding of the subjects between classroom (face-to-face) learning method and e-learning method.

## Literature Review

### Conceptual Framework

#### Concept of E-learning

Researchers such as Anwar and Adnan, (2020) simply viewed e-learning as a learning that occurs through the aid of computer. E-learning entails knowledge acquisition online by the use of internet facilities or offline relying on CD-ROM. Specifically, e-learning adopts network facilities in delivering and facilitating teaching and learning process. Adewole-Odeshi (2014) specifically refers to e-learning as any learning that is electronically enabled; the application of digital technologies. E-learning entails the integration of digital technologies in teaching and learning process through the internet facilities (online) or CD-ROMS (offline). Samir and Hiren (2017) buttressed on the use of internet and digital technologies as major features of e-learning that aid the transfer of knowledge which has changed the usual face-face classsroom method of knowledge acquisition. There is no doubt that access to education has been enhanced by the integration of ICT facilities such as multimedia and internet in the teaching and learning process.

The modern technologies facilitate the knowledge acquisition and ease exchange of information between learners and teachers. Similarly, there is a general view that e-learning approach is a source of motivation to students for collaboration in learning. In addition, the integration of technologies in learning has tremendously extended the learning audience beyond the face-face classroom mode. The implication is that more people have access to quality education irrespective of their location. In fact, studies have revealed that e-learning has impacted more significantly on the performance of students than the classroom learning and teaching methods. With all the potentials associated with e-learning concept, it is considered as an attractive and innovative learning model that moves away from traditional face to face traditional method to a new paradigm in teaching and learning approach.

This paradigm shift could generate changes in students' perception of this way of teaching and their perception might be different. Previous studies show that E-learning offers many benefits for students because this type of learning involves student-centeredness, it is more flexible (Anwar & Adnan, 2020 ), and it can also improve interaction with students by providing asynchronous and synchronous tools such as e-mail, forums, chats, video conferences (Marinoni; Vant& Jensen, 2020). Furthermore, internet technologies facilitate the distribution of content at the same time, to a large number of users; E-learning platforms offer many advantages to learners such as control over the content, control over the time spent learning, and thus the process can be adapted according to the learner needs and objectives of learning (Suresh, Priya, Gayathri, 2018). This might contribute to better communication with the students and in spite of some inherent challenges brought by this time of crisis, E-learning might enhance the learning process for students.

However, when using E-learning platforms there are also some elements that might be considered obstacles in students' process of learning, such as decreased motivation in students, delayed feedback or help due to the fact that teachers are not always available at the time students may need help while learning, or feelings of isolation due to lack of physical presence of classmates (Yusuf & Al-Banawi, 2013). Nonetheless, these obstacles can be overcome with the help of teachers who should adapt their teaching strategies to the needs of students. In order to do so, experience and knowledge about teaching in the online environment are necessary

### **E-learning Method in Nigeria Educational System**

The e-learning is not a new phenomenon in promoting education in some parts of world. Presently, some institutions in Nigeria are using it to promote distance education (DE) and lifelong learning. E-learning according to Sale (2002), is the use of electronic technology to deliver education and training applications, monitor learner's performance and report learner's progress. Hedge and Hayward (2004), defined it as an innovative approach for delivering electronically mediated, well-designed, learner-centered and interactive learning environments to anyone, anyplace, anytime by utilizing the internet and digital technologies in concern with instructional design principles. It is all about learning with the use of computers. In this age, learning with the use of computer is simply online ways of acquiring knowledge through the internet or through the offline

According to the UNICEF Nigeria Report published in January 2020, about 60 percent of Nigerians are not connected to the internet (UNICEF Nigeria, 2020). The statistics for mobile phones, which could also be used as a learning medium, are more hopeful. According to the report, around 169.2 million people, 83 percent of Nigerians have access to mobile phone connections; however, 50 percent of this number - around 84.5 million people, reside in urban areas (Nuhu, 2020). Hence, there is overwhelming majority of whom are private school students who already have a learning advantage over their public school peers. For children from poorer backgrounds who tend to have less access to internet connectivity, computers, and other devices, and reside in rural areas where local languages take dominance over English, ICT-learning uptake will be limited. The inequity in access to ICT -based learning has the adverse effect of further intensifying the existing disparities in learning outcomes along socio-economic lines, and the urban-rural divide. These students would continue to fall further behind. For students with learning disabilities, and those living in fragile and conflict -affected regions, the outlook is even bleaker. By implication, this raises a major challenge around educational inequality given the technological landscape and income driven digital -divide, how do we harness available technology to support already marginalized students? Obviously, the challenges associated with access to online learning facilities and unavailability of teachers online when students need help in their learning process may demotivate students in the adoption of virtual learning model (Nuhu, 2020).

### **Students and Teachers Perception of E-Learning**

Perception of students and attitude towards e-learning refers to the extent of acceptance of electronic adoption in teaching and learning. Students' and teachers level of acceptance of digital technologies in knowledge acquisition is likely to influence the learning outcome. Similarly, there is a proposition that the benefits of e-learning can only be derived if students and teachers are receptive to digital adoption in knowledge acquisition. On the contrary, students negative perception and attitude towards e-learning is likely to hinder positive outcome in e-learning method. Hence, it is argued that academic performance of students as it relates to e-learning is linked to perception of students and teachers, and their attitudes towards e-learning approach. In the same vein, resistance to technology adoption due challenges and lack of internet facilities or slow internet facilities is likely to erode favourable disposition to technology adoption which is likely to have effect on the learning outcome. Samir, Hiren (2017) argued that individual innovativeness have significant effect on his attitude towards online learning. Hence, individual's creativeness level on change is a determinant factor in his approach towards E-learning of prior-service teachers. Generally, there is tendency to have substantial variation in individuals perception and attitude towards e-learning

## **E-Learning as a Motivation for Studies**

Adebayo and Balogun (2019) noted that the adoption of digital tools in respect of e-learning method is critical for the successful implementation of various learning modes. It has also been reported that at modern classroom, whether online or schools-based, use technological tools and learning management systems to capture student cognition and engages them in the learning process while increasing their need for self-directedness and motivation towards knowledge acquisition. Ming (2017) tacitly stated that digital learning has significant effect on students motivation resulting in positive learning outcome. Researchers have also identified e-learning as capable of presenting better positive effects on learning motivation than traditional teaching.

Similarly, Ming (2017) observed that E-learning aids students to assimilate information as well as, or even better than students studying in the traditional way. E-learning is often very effective especially in the case of shy, easily intimidated, and slow learning students who usually do not have the courage to speak up and express themselves in the classroom. Bakia, Shear, Toyama, and Lasseter, (2012) argued that E-learning gained popularity mainly because of its flexibility in delivering education and accessing content and resources. Thus, E-learning has great importance because of its ability to improve quality and providing the possibility to personalize and adapt to the needs of the learners.

Zare, Sarikhani, Sarikhani and Babazadeh (2015) also found that learning and recollection of students who were educated to multimedia methods, is more than learning and recollection of students who were educated in the traditional methods. Zare et al. (2015) also emphasized on E-learning functions of elimination of barriers of space and time, enabling the user to have access to a wide range of information, facilitating collaboration which allows students to learn in their own rhythm. Most importantly, e-learning motivates students to interact with their peers, discuss and exchange points of view and ideas, eliminates some extra activities which may be time consuming for students like copying notes because all activities are already in the materials students just need to do the class activities (Ming, 2017).

## **Theoretical Framework**

### **The Theory of planned Behaviour,**

The Theory of Planned Behaviour (TPB) foresees an individual's intention to participate in behaviour at a specific time and place (Ajzen, 1991). Furthermore, the theory stated that individual behaviour is determined by behaviour intentions, with three bases. These bases include the individual's attitude toward the behaviour, subjective norms, and perceived behavioural control. In addition, the Technology Acceptance Model (TAM) explains perceived usefulness and usage purposes regarding social influence and cognitive instrumental processes of an individual or teacher. Apeanti (2014) noted that the Technology Acceptance Model is the most widely applied theoretical model in the technology use research which was developed to explain computer usage behaviour. In line with the planned behaviour theory, the focus is on the teachers' and students' intentions or attitudes of using ICT in teaching and learning. The behavioural intentions in this study represents teachers' motivation in the sense of conscious plan or decision to perform certain behaviour, in this case, the use of ICT in education and students' motivation to learn via ICT. The first base of the behaviour is the teacher's attitudes towards the use of ICT. This means the degree to which teachers have a positive or negative perception of the use of online facilities in teaching influences online learning method.

### **Transfer Theory**

The transfer theory posits that teachers believe that knowledge is a commodity that can be transferred from one object to another (Fox, 1983). Teachers who adopt this personal learning theory believe that knowledge is information that can be transferred from one person (the teacher) to another person (the student). These teachers focus how knowledge with little or no attention can be received by the students. There is an emphasis on the knowledge that students will receive, and the instructional practices chosen to deliver this knowledge will have a direct impact on students' academic learning, needs, interests, and future endeavors (Fox, 1983). The theory posits that teachers craft and plan the lesson, and the choice of delivery due to the skills acquired in the

area of imparting knowledge which makes it easy for students to understand (Fox, 1983). Hence, when students fail to demonstrate possession of the knowledge imparted to them, the blame is attributed to the students.

### **Empirical Review**

Elena, Svetlana, Natalia and Yana (2021) conducted a study on the impact of e-learning on academic performance. The study employed a descriptive survey design. The study found that E-learning has positive influence on academic success of students. The study also revealed that the role of ICT in increasing the usage of e-learning remains an important aspect in education and learning as it encourages and enhances education. The study concluded that sufficient ICT facilities can contribute to better learning and student academic performance to a considerable degree. Hence, e-learning helps students to show their talents and capacities faster.

Zouhaier (2020) carried out a study on Online learning and teaching during COVID-19: A case study from Oman. The qualitative method was used to ensure the validity of the results based on a qualitative survey that was made up of 12 questions and covered three major sections related to challenges, opportunities and possible solutions for the online learning and teaching experience. The study revealed that the online experience of teaching and learning in Oman was a real challenge for both staff, students and stakeholders. However, it was also an excellent opportunity for them all to learn new skills and change their way of thinking towards online learning and teaching. Additionally, COVID-19 has made the whole world aware of adopting technology and artificial intelligence in the future in educational systems as they have proven their efficiency in many fields.

Sunday, Ayooluwa, Pascal and Olaniyi (2020) conducted a study on the impact of E-Learning and Digitalization in Primary and Secondary Schools. The study employed a descriptive survey design using accidental sampling method. A total of 40 students and 40 teachers were sampled, using questionnaire. However, only a total of 32 and 35 were usable out of the questionnaires administered to the students and teachers, respectively. Descriptive statistical method was adopted for analysis. The study found that most students agreed that e-learning help students to have access to unlimited source of information; reveals connection between subjects; promotes critical thinking; and encourages students' way of learning. The study further showed that majority of the teachers agreed that e-learning is easier and effective; helps to further develop teachers' computer skills; and brings out the best in students. The study concluded that the two parties agreed that e-learning helps teachers and students to share accountability for learning and achievements

Samir and Hiren (2017) conducted a study on the students' attitude towards E-learning . The study adopted a descriptive survey design. The study found that there is a significant difference in attitude towards the use of E-learning between male and female students. The study also revealed that there is a significant difference in attitude towards the use of E-learning between rural and urban students. Hence, concluded that there is a significant difference in attitude towards the use of E-learning between different categories of students.

### **Methodology**

The descriptive survey design was adopted in this study. This involves the use of questionnaire as the research instrument to gather data from a relatively large population. The methods of data collection for this study are primary source of data. The population of this study comprised Nine hundred and seventy-four (974) senior secondary school students in five selected Senior Secondary Schools in Ojo Local Government Area namely: St. Mary's Secondary School, Ojo, Lagos State University Staff Secondary School, Ojo, Evalight International School, Ojo, Jolat Model College, Ojo, and Supreme Wisdom College, Ojo in Lagos. The sample size was computed using the Yamane (1967) formula. Thus, the sample size for this study is 130 students of the selected schools. However, 120 copies of questionnaire were returned. Thus, data analyses were based on the number of returned questionnaire. Inferential statistics such as the Chi-Square, Pearson Product Moment Correlation Coefficient and T-test Analysis were adopted in testing the hypothesis.

## Results and Discussion

H<sub>01</sub>: Students' and teachers perception of e-learning method of learning does not influence academic performance in the selected secondary schools in Ojo Local Government Area.

Table 1. Chi-Square analysis

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	186.964 <sup>a</sup>	16	.000
Likelihood Ratio	207.141	16	.000
Linear-by-Linear Association	78.087	1	.000
N of Valid Cases	120		

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .23.

**Result:** From the Chi-square analysis of research hypothesis one, it is discovered that the Chi-square calculated value is 186.3. This is greater than Chi-square tabulated value of 26.29 at 0.05 level of significance with 16 degree of freedom. Based on this result, the null research hypothesis is rejected while the alternative hypothesis that "Students' and teachers perception of e-learning method of learning have influence on academic performance in the selected secondary schools in Ojo Local Government Area" is accepted.

## Hypothesis Two

H<sub>02</sub>: There is no significant relationship between e-learning and motivation for studies in the selected Secondary Schools.

Table 2. Pearson's Product Moment Correlation Matrix showing Relationship Between Learning and Motivation for Studies.

E-

Correlations			
		E-Learning	Motivation for Studies
E-Learning	Pearson Correlation	1	.878**
	Sig. (2-tailed)		.000
	N	120	120
Motivation for Studies	Pearson Correlation	.878**	1
	Sig. (2-tailed)	.000	
	N	120	120

\*\* . Correlation is significant at the 0.01 level (2-tailed).

As evident on the above Table 2, online learning method and motivation for studies correlated strongly at correlation coefficient of  $r = -0.875$  at a probability ( $p$ )  $< 0.01$ . Since P value is less than  $\alpha$  (0.01), we reject H<sub>0</sub> and accept H<sub>i</sub>. Hence, there is significant relationship between E-learning and motivation for studies in the selected Secondary Schools. However, the r-value is positive (0.875) which shows a positive relationship. This implies that an improved E-learning method increases motivation for studies.

## Hypothesis Three

H<sub>03</sub> : There is no significant difference in the students' understanding of the subjects between classroom (face-to-face) learning method and e-learning method.

**Table 3. Summary of T- test analysis of differences in the students' understanding of the subjects between classroom (face-to-face) learning method and E-learning method.**

Variable	Learning Methods	No of respondents	Mean	SD	DF	T	P	Remarks
Teaching and learning methods and students perception of the teaching methods	E-learning	68	11.9365	4.51475	67	-2.793	0.000	Significant ( $p < 0.05$ )
	Class room learning method	52	28.2105	5.69378	51			
	Total	120			118			

Table 3 above shows the

result of independent T-test of differences *in the* students' understanding of the subjects between E-learning method and classroom (face-to-face) learning method. It is observed that the mean rating on online learning method (Mean = 11.9365, SD= 4.51475), and classroom learning method (Mean= 28.2105, SD= 5.69378). To test for significance of difference, the data is subjected to t-test and the results indicate a calculated t-value ( $T_{cal}$ ) of -2.793 as against a critical value ( $T_{tab}$ ) of 1.960 given 118 degree of freedom at 0.05 alpha level. Since the calculated t-value of -2.793 is less than the tabulated t-value of 1.960, we accept null hypothesis ( $H_0$ ) and conclude that there is no significant difference in the students' understanding of the subjects between E-learning method and classroom (face-to-face) learning method. These results simply suggest that the difference in students understanding of subjects between E-learning and class room (face-to-face) learning method is insignificant.

### Discussion

Result of the Chi-square analysis of Hypothesis 1 revealed that students' and teachers perception of E-learning method does influence academic performance in the selected secondary schools in Ojo Local Government Area. This result corroborates with Samir, Hiren (2017) finding that individual innovativeness and perception have significant effect on his attitude towards e-learning which consequently, affects the learning outcome.

Result of the hypothesis two also revealed that there is significant relationship between e-learning and motivation for studies in the selected Secondary Schools. This result is in line with Ming (2017) finding that digital learning has significant effect on students motivation resulting in positive learning outcome.

The result of the T-test analysis 3 revealed that there is no significant difference in students' understanding of subjects between e-learning and classroom (face-to-face) learning methods. This result simply suggests that the difference in students understanding of subjects between class room (face-to-face) learning method and e-learning method is insignificant.

### Conclusion and Recommendation

Apparently, the study revealed that perceived attitude of students and teachers towards e-learning method influences academic performance in the selected secondary schools. There is significant relationship between e-learning and motivation for studies in the selected Secondary Schools. It is easy for students to find necessary information when using online platform. The study also showed that there is no significant difference in the students' understanding of the subjects between e-learning and classroom (face-to-face) learning method. For effective E-learning method, there is need for the selected schools to provide adequate e-learning facilities to ease the challenges students encounter in the online learning process. Again, here is also need for teachers to be trained in the effective use of the e-learning facilities in order to enhance learning process via online. In addition, schools and appropriate educational agencies should design e-learning process in a way that teachers can easily adjust learning materials to take into account children with special needs and involve learners in planning for instructional materials.

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