

## **EFFECTIVENESS OF VIRTUAL LEARNING ON TEACHERS' PEDAGOGY AND STUDENTS' PERFORMANCE IN IKEDURU LOCAL GOVERNMENT AREA OF IMO STATE, NIGERIA.**

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### **ABSTRACT**

*This study investigated the effectiveness of virtual learning on teachers' pedagogy and students' performance in Ikeduru Local Government Area of Imo State, Nigeria. Three research questions were formulated to guide the study. The study adopted descriptive study research design. The population of the study consisted of 40 secondary school teachers from Ikeduru Local Government Area of Imo state. The instrument used for the data collection was researchers' self designed questionnaire. Percentage, mean and standard deviation were used for data analysis. The study revealed, among others the effectiveness of students' virtual engagement and teachers' low performance on online class. The study recommended, among others, that Private Secondary School teachers should be trained and motivated on the online innovative teaching/learning. Parents should ensure adequate monitoring to their children so as to motivate them towards doing assignment and other relevant requirement.*

**Keywords:** Students' performance, teachers' pedagogy, virtual learning, effectiveness, Ikeduru LGA.

## **Introduction**

The virtual classroom learning has created new teaching pedagogy; though, it is not a new phenomenon. The first correspondence and distance learning educational programs were initiated in the mid-1800s by the University of London (Jasmine & Felicia 2019). Teachers are not necessarily needed to communicate verbally before students. Hence, teachers and students are virtually present in the online environment where verbal teaching and communication is made feasible. A virtual learning is an online learning environment, initiated through the use of internet base devices like computers, mobile phones, sophisticated videoconferencing devices, in which both the teachers and students are not physically present. Thus, virtual classroom is a tool for delivering live-e-learning. Virtual learning is more like a distance education, which bring students from far and near together through the power of technology (web-conferencing, video-conferencing, and tele-presence technologies). The technology industries create dynamic websites to help facilitate online learning experiences using mobile and other web-based learning technologies, (Aranda, 2011, Blanco & Ginovart, 2012, & Truelson, 2012, Fasso, 2013). Dawson, (2010) asserts that creation of web based courses introduces a new aspect to pedagogy providing virtual learning spaces. Virtual learning, also known as online learning or distance learning has been transforming the face of the education system for quite some time. Although it may boast of several advantages over traditional methods, it still has its draw backs, including limited communal synergies, which hitches on the key subjects like mathematics, physics among others. These are subjects that are better taught via traditional methods especially among secondary School students. As online instruction is often student-centered and requires active learning, online learners may lack feedback for both students and instructors. Virtual learning may lack dynamic learning attributes unlike the classroom instruction, which is extremely dynamic. It may equally lack innovation as it could possibly limit immediate response from teachers and more content delivery. Most likely, online instruction may dampen the learning process because students must limit their questions to blurs in which case, granting the teachers and fellow classmates time to respond. Moreover, most students are technophobes; they feel more comfortable sitting in classroom learning than sitting at a computer screen which may adversely damage their sight.

Furthermore, finally, discipline will be very hard to instill in virtual learning as students are more likely to quit class if they do not like the instructor, the format, or the feedback. More so, with online teaching, instructors are limited to electronic correspondence and may not pick up on verbal and non verbal cues. Because of these shortcomings, student morals, retention, satisfaction, and performance can be compromised. However, virtual learning introduces various technical advantages which include universal accessibility, ease in updating content, and hyperlink functions to facilitate cross-referencing of other resources, which allows more complex social interactions and designed learning experiences and encourages learners to be empowered through interactivity (De Freitas 2010). Computer devices and internet connection provide avenue in the delivery of live teaching of planned instruction. Cook (2007) concludes that virtual teaching and learning help facilitate individualized instruction. Similarly, both virtual and physical integration of students and teachers can be collaborated to achieve learning objectives. Jasmine and Felicia (2019) posit that non-traditional study has grown into what is today considered a more viable online instructional modality. They further assert that technological advancement indubitably helps to improve the speed and

accessibility of distance learning courses; now students worldwide could attend classes from the comfort of their own homes. Based on the above assertions, virtual learning may be effective on teachers' pedagogy and students' performance. Therefore, there is need to ask the following questions. What are the modalities for teachers-students engagement of virtual learning in Ikeduru Local Government Area? What is the rating for teachers' effectiveness of virtual classes on students?

Effectiveness of virtual learning on teachers' pedagogy is yet to be ascertained. Though, web-based systems are tools for information delivery, which allows teachers to manage their classes in an accessible online environment (Simonson, 2007).

Several studies have been conducted to describe the effectiveness of virtual learning on student's performance. Chou, (2013) states that the performance of students in online learning contributed to higher level of computer self efficacy. Wladis (2015) posits that with technological advancement, learners now want quality programs they can access from anywhere and at any time. He further asserts that because of these demands, online education has become a viable, alluring option to business professionals, stay at home parents, and other similar populations. In addition to flexibility and access, multiple other face value benefits, including program choice and time efficiency, have increased the attractiveness of distance learning. Salcedo (2010) states that virtual learning grants students electronic access to multiple schools. Therefore, students who were once limited to a few colleges within their immediate area can now access several colleges worldwide from a single convenient location. Driscoll, Jicha, Hunt, Thompson (2012) are of the opinion that with virtual learning, shy students who usually don't participate in class may now voice their opinions and concerns. As they are not in a classroom setting, they feel more comfortable partaking in class dialogue without being recognized or identified. Driscoll et al stress that this in turn may increase the average class scores. The disadvantages encountered from virtual learning are mostly rooted from difficulties in communication, misunderstanding of course goals, perceived lack of sense of community, study overload, and lack of technological skills and knowhow (Koh & Hill, 2009; Ai-Dosari, 2011). Gonzales (2012) & Power and Vaughan (2010) identified different reactions of students and teachers to virtual learning. Castle & McGuive (2010) note that the use of virtual learning modalities required some adjustments on its implementation and utilization on many areas such as learning experience, interactivity and assessment, among others. In online learning, the student is dependent upon access to an unlimited internet connection. If there is disruption in internet connection, online students may not be able to communicate, submit assignment, access study materials. This problem, in turn, may frustrate the students, hinder performance, and discourage learning. The effectiveness of virtual learning on teacher's methodology may influence and improve the learning process and performance of the students (Baltes & Nistor, 2011; Al-Dosari 2011). Salawu & Adeoye (2008) indicate that the most common type of e-learning adopted in Nigerian schools was in the form of lecture notes on CD-Rom, which could be played whenever the learners desire. There are few private schools that have adopted high level digital education in Ikeduru local government area, Imo state. Inevitably, this begs the question: how can online learning improve academic performance?

Based on the above mentioned advantages and challenges of virtual learning, there is dire need to access the mode of teachers-students engagement on virtual learning in private secondary schools in Ikeduru local government area of Imo state. Hence, the present survey determined effectiveness of virtual learning on teachers' pedagogy and students' performance in Ikeduru local government area of Imo state, Nigeria.

### **Statement of Problem**

The outbreak of the novel Corona Virus pandemic in China gripped the world with fear and shock, thereby overwhelming the education system. It hampered the smooth running of academic activities, adversely affecting the students, teachers and the society at large. It is good to note that the implementation, management and improvement of virtual learning in Ikeduru local government area, Imo state, Nigeria is presumed to have a negative impact on students and teachers. Nigeria engages into technological leapfrogging with very weak and poor technological devices and constant power failure. Access to energy enables people to work their way out of poverty, access to sound education and improvement to good health. New technologies such as solar and hydro power (solar powered computers and projectors) can provide access to energy without building expensive power plants. Based on this, the researchers see poor technological advancement and constant power failure as inhibition to the smooth access to virtual learning thereby standing as an impediment and worries to this study.

Health wise, continued exposure to the light from computer or cell phone can damage retinal cells and cause vision problem such as age related muscular degeneration, cataracts, eye cancer and growth on the clear covering over the white part of the eye. Hence, inventing and introducing virtual learning in Ikeduru local government area, Imo state, Nigeria without finding solution to the aforementioned problems will cause harm especially to our future generation. Therefore, rapid changes in unstable environment and a lack of infrastructure will lead to destabilization and cause more problems than they solve. Based on these worries by the researchers, it will be pertinent to ask the vital questions: can online learning improve academic performance? What are the rating on the effectiveness of virtual learning on teachers' pedagogy and students' performance in Ikeduru local government area, Imo state, Nigeria.

### **Research Questions**

1. What is the pedagogy of teachers-students engagement on virtual learning in Ikeduru; Local government area of Imo State.
2. What are the rating on the effectiveness of virtual learning on teachers' pedagogy
3. What is the rating on the effectiveness of virtual learning on students' performance?

### **Methodology**

Descriptive survey was adopted for this study. According to Cheek and Schult (2012), descriptive survey is the collection of information from a sample of individuals through their responses to questions. Survey research can use quantitative research strategies using questionnaire with numerically rated items, qualitative research strategies using open ended questions, or both strategies for data collection (Ponto, 2015). Therefore, descriptive survey design was found suitable for the study because questionnaire was used to collect data from

the respondents who are secondary school teachers. The study was carried out in Ikeduru Local Government Area of Imo State, Nigeria. The reason for this chosen population is because they form those who engaged in online teaching during Covid-19 lockdown of schools. The target population for this study comprised all private secondary school teachers taking online classes in both Junior and secondary schools in Ikeduru local government area of Imo State. A two stage random sampling procedure was used to select the sample for this study. In the first stage, five (5) private secondary schools were randomly selected. In the second stage, eight (8) teachers were randomly selected from each school, making total (40) teachers.

Three research questions guided the study. The instrument for the study was researchers' self designed questionnaire tagged pedagogy of teacher's student engagement on virtual learning, effectiveness of virtual learning on teachers and students performance (POTSEOVLEOVLOTSP). The questionnaire consisted of four sections A,B,C, &D. Section A sought demographic data of senior secondary school teachers and this consisted of teacher's qualification, sex and years of experience. Section B consisted of 16 items used to describe the pedagogy of teachers-students engagement on virtual learning. Section C comprised of 18 items that sought information on the effectiveness of virtual learning on teacher's pedagogy. While Section D, consisted of 17 items focused on effectiveness of virtual learning on student's performance. The responses to section B,C & D were all measured on a four-point rating scale of strongly agree (SA), Agree (A), Disagree (D) and strongly disagree (SD). Lawshe content validity was used to establish the content validity and the value obtained was 0.82. The internal consistency and reliability of the instrument in section B,C, and D were established using Cronbach Alpha to get the values of 0.75, 0.84 and 0.74 respectively. The instrument was taken to the sampled schools and was administered to the teachers. Teachers' responses were scored and data collated were analyzed using descriptive (Percentage, mean and standard deviation).

## Result

### Research Question 1

What is the Pedagogy of teacher-student engagement on virtual learning in Ikeduru Local Government Area of Imo State, Nigeria?

**Table 1:** Pedagogy of teacher-student virtual engagement

N/S	Statements	Strongly Disagreed	Disagreed	Agreed	Strongly Agreed	Mean	S/D
1.	Teachers are present online as at when due	2(5.0%)	1(2.5%)	27(67.5%)	10(25.0%)	3.13	.686
2.	Students are present online as When due	1(2.5%)	17(42.5%)	18(45.0%)	4(10.0%)	2.63	.705
3.	Teachers put assignment online For students to access always	0(0%)	6(15.0%)	18(45.0%)	16(40.0%)	3.25	.707
4.	There is a barrier in network Connection	17(42.5%)	18(45.0%)	3(7.5%)	2(5.0%)	1.75	.809

5.	Students attempt all the Question displayed by the Teacher	7(17.5%)	19(47.5%)	13(32.5%)	1(2.5%)	2.20	.758
6.	Students participate fully in the online classes	2(5.0%)	26(65.0%)	11(27.5%)	1(2.5%)	2.28	.599
7.	Both Students and Teachers are Usually punctual during online Classes and the images are clear And audios are audible	4(10%)	6(15%)	23(57.5%)	7(17.5%)	2.83	.844
8.	Students are given the opportunity to ask relevant questions during virtual classes	5(12.5%)	8(20%)	23(57.5%)	4(10.0%)	2.65	.834
9.	Teachers attempt all questions Rightly asked by students during Online classes.	3(7.5%)	5(12.5%)	23(57.5%)	9(22.5%)	2.95	.815
10.	Revision are usually done by Teachers during online classes	3(7.5%)	4(10%)	27(67.5%)	6(15%)	2.90	.744
11.	Teachers punishes students Via online for late submission Of assignment	16(40%)	18(45%)	6(15%)	0(0%)	1.75	.707
12.	Test and CA are usually Conducted online.	5(12.5%)	12(30%)	22(55%)	1(2.5%)	2.48.	.751
13.	Instructional materials are Available to be used during Lesson by the teacher.	3(7.5%)	10(25.0%)	22(55%)	5(12.5%)	2.73	.784
14.	Teachers control their classes Through virtual learning.	4(10%)	11(27.5%)	25(62.5%)	0(0%)	2.53	.679
15.	Virtual learning provides Students and teacher avenue to Keep a record of progress made.	4(10%)	20(50%)	16(40%)	0(0%)	2.30	.648
16.	It create a good interactive platform for both teachers and students.	4(10%)	10(25.0%)	24(60%)	2(5.0%)	2.60	.744

Findings from table 1 are as presented respectively, 67.5% agree that as at when due, while 2.5% disagree. Only 55.0% agree that students are present online as at when due, while 45% disagree. Only 15% disagree that assignments are not put online for students on regular basis. Minority (12.5%) agree that the network is never a problem. 65% disagree that students attempt all questions displayed on the screen while 35% agree that all questions are been attempted by the students. 70% states that students do not participate fully in online classes while 30% agree that students participate fully. Majority agree that both teachers and students are punctual during online classes. 67.5% concurred that students are given opportunity to ask relevant question while 32.5% disagree with the fact that teachers attempt all questions asked by the students during online classes while 20% disagree with the notion. 82.5% agreed that revisions of subjects are being carried out in online classes. 85% disagree to the item that adequate punishment is meted out on online classes to students. 57.5% agree to conduct tests and continuous assessment on online classes. 67.5% agree that instructional methods are

available to be used by teachers during online classes. 62.5% agree that teacher's control their classes appropriately during virtual learning. 60% disagree that virtual learning provides teachers and Students Avenue to keep a record of progress. 65% of teachers agree that virtual learning create a good interactive platform for both teachers and students.

## Research Question 2

What are the ratings on the effectiveness of virtual learning on teachers' pedagogy?

**Table 2:** Effectiveness of Virtual Learning on teachers

N/S	Statements	Strongly Disagreed	Disagreed	Agreed	Strongly Agreed	Mean	S/D
1.	Virtual classes makes learning more flexible and interactive.	1(2.5%)	11(27.5%)	19(47.5%)	9(22.5%)	2.90	.778
2.	it makes it highly efficient in career advancement.	3(3.7%)	2(5.0%)	11(27.5%)	24(60%)	1.60	.900
3.	Improve Digital Literacy	0(0%)	1(2.5%)	12(30%)	27(67.5%)	3.65	.533
4.	Help teachers bond with Students.	4(10.0%)	30(75%)	6(15%)	0(0%)	2.05	.504
5.	With online classes, teachers Have options on how to teach And offer innovative and Interesting way to present the Content and explain points.	3(3.7%)	2(5.0%)	11(27.5%)	24(60%)	1.60	.900
6.	Virtual learning help teachers Complete their scheme of work At the lockdown period.	1(2.5%)	4(10.0%)	19(47.5%)	16(40.0%)	3.25	.742
7.	It offers qualitative education Than traditional method.	13(32.5%)	22(55.0%)	5(12.5%)	0(0%)	1.80	.648
8.	It is very expensive to operate	0(0%)	3(7.5%)	20(50%)	17(42.5%)	1.65	.622
9.	Shortage of electricity supply is a major inhibition.	19(47.5%)	13(32.5%)	8(20.0%)	0(0%)	1.73	.784
10.	It is very complex making Assignments submitted online.	3(7.5%)	7(17.5%)	18(45%)	12(30%)	2.03	.891
11.	Virtual learning hinders Individualization of instruction.	4(10.0%)	5(12.5%)	16(40%)	15(37.5%)	1.95	.959
12.	It is not easy for teachers to Genuinely access student Properly.	3(7.5%)	1(2.5%)	17(42.5%)	19(47.5%)	1.70	.853
13.	Teaching is less attractive and uninteresting.	0(0%)	8(20%)	21(52.5%)	11(27.55%)	1.93	.694
14.	Teachers are always lazy through virtual learning.	9(22.5%)	20(50%)	5(12.5%)	6(15.0%)	2.80	.966
15.	Virtual classes can make teachers loss their job.	4(10.0%)	7(17.5%)	17(42.5%)	12(30.0%)	2.80	.944

16.	Virtual classes improves teachers' skills.	0(0%)	1(2.5%)	12(30%)	27(67.5%)	3.65	.533
17.	Teachers find it difficult to Instill discipline on students.	0(0%)	0(0%)	19(47.5%)	21(52.5%)	1.48	.506
18.	Virtual classes causes laziness on the part the teachers.	9(22.5%)	20(50%)	5(12.5%)	6(15.0%)	2.80	.966

In table 2, the findings for the effectiveness of virtual learning on teacher's performance were presented respectively. 70% agreed that virtual learning makes learning more flexible and interactive 87.5% consented that it is highly efficient in career advancement. Also 97.5% agreed that virtual learning improves digital literacy. 15% believe that teachers bond with students during virtual learning. 77.5% consented that with online classes, teachers have options on how to teach and offer innovative and interesting way to present the content and explain points. The majority of 87.5% agreed that virtual learning helps teachers complete their scheme of work. Just 12.5% support the view that virtual class offers a higher quality education than face to face learning. 92.5% forms the majority that agrees that virtual learning is very expensive to operate. 20% agree that shortage of electric supply is a major hindrance. 75% confirmed that marking online submitted assignment is complex. 77.5% consented that virtual learning hinders individualization of instruction. Also 90% agreed that students cannot be genuinely accessed. 80% believe that teaching is less attractive and uninteresting. 27.5% agree that it makes teachers lazy. 72. 5% agreed that it can lead to loss of employment. The majority 97.5% agree that it makes teachers improve on their IT skills. 100% of the respondents agreed that discipline cannot be instilled on online class. Only 25% agreed that is less preparation on the part of the teacher in online classes. Conclusively, only items 1,2,3,5,6,9,14,16,18 with 70%, 87.5%, 97.5%, 77.5%, 87.5%, 20%, 27.5%, 97.5%, 25% respectively shows that teachers effectiveness of virtual learning performance is effective, while the remaining 9 items is a pointer to the fact that virtual class on teachers performance is not effective in Ikeduru Local Government Area of Imo State, Nigeria.

### Research Question 3

What are the ratings on the effectiveness of virtual learning on student's performance?

**Table 3:** Effectiveness of Virtual classes on students

N/S	Statements	Strongly Disagreed	Disagreed	Agreed	Strongly Agreed	Mean	S/D
1.	Online classes makes learning more flexible and interactive.	0(0.0%)	3(7.5%)	20(72.5%)	8(20.0%)	3.13	.516
2.	Online Instruction offers the Students opportunity to try games activities.	15(37.5%)	17(42.5%)	8(20.0%)	0(.0%)	1.83	.747
3.	Students can correlate with Each other online to discuss Assignments, sort problems, And learn together.	15(37.5%)	24(60.0%)	1(2.5%)	0(0%)	1.65	.533
4.	Engage students at a deeper level.	6(15.0%)	20(50.0%)	12(30.0%)	2(5.0%)	2.25	.776



5.	It increases students motivation to learn.	15(37.5%)	17(42.5%)	8(20.0%)	0(.0%)	1.83	.747
6.	Students feels more ease and Open to participate in discussion and classwork.	6(15.0%)	18(45.0%)	14(35.0%)	2(5.0%)	2.30	.791
7.	Students develop new computer skills.	0(0%)	12(30.0%)	17(42.5%)	11(27.5%)	2.03	.768
8.	Help students excel in the working world of the future.	3(7.5%)	7(17.5%)	18(45%)	12(30%)	2.08	.616
9.	Offer students multiple ways to learn.	0(0.0%)	5(12.5%)	26(65.0%)	9(12.5%)	1.90	.591
10.	It affords students opportunity to be lazy.	0(0%)	12(30.0%)	17(42.5%)	11(27.5%)	2.03	.768
11.	Students are less responsive on online classes.	3(7.5%)	7(17.5%)	18(45%)	12(30%)	2.08	.616
12.	Students are always distracted by online teaching.	0(0.0%)	7(17.5%)	21(52.5%)	12(30.0%)	1.88	.686
13.	Virtual Learning inhibit competition among students.	4(10.0%)	15(37.5%)	15(37.5%)	6(15.0%)	2.43	.874
14.	It may endanger the sight of students.	1(2.5%)	13(32.5%)	10(40.0%)	10(40.0%)	2.13	.822
15.	Network connection is always a barrier for easy communication.	3(7.5%)	9(22.5%)	24(60.0%)	4(10.0%)	2.73	.751
16.	It hinders transparencies Evaluation of assignment and Examination of score.	0(0.0%)	7(17.5%)	21(52.5%)	12(30.0%)	1.88	.686
17.	It fosters initiatives in the Students.	2(5.0%)	11(27.5%)	11(27.5%)	16(40.0%)	1.98	.947

Table 3 conveys the findings for teachers' assessment on effectiveness of virtual classes on students respectively. Many teachers (97.5%) insist that virtual classes makes learning more flexible and interactive, just 20% agree that it allows students to engage and participate into game activities; only 2.5% agree that students relates freely in solving academic problems. 35% consented that virtual classes engage students at deeper level. Majority 57.5% agree that it motivates students to learn. Minority 40% agreed that students feel more ease and open to participate in discussion and classwork. 70% gave consent that students develop new computer skills on the process of engaging in online teaching. 75% agreed that virtual classes help students to excel in the working world of the future, 77.5% agreed that online classes offer students multiple ways to learn, while 70% agreed that it can create laziness among students. 77.5% consented that students are less responsive and 82.5% confirmed that students are distracted through virtual learning. 52.5% agreed that it inhibits competition among students, 52.5% also agreed that online teaching can cause eye problem. 70% is of the view that network connection is always a barrier for easy communication, 82.5% consented that

students may not know how their work is evaluated. 55% agreed that it fosters initiatives in the students. 80% agreed that online class would have been the best, if students can relate freely.

In summary, 6 items 1, 5,7,8, 9 and 17 respectively on teachers' assessment agreed that virtual class is highly effective on students performance with the following percentage; 97.5, 57.5, 70, 75,77.5, and 55. While the remaining 12 items disagree on the effectiveness of online class on adolescents performance in Ikeduru Local Government Area of Imo State, Nigeria.

## **Discussion**

The findings indicated that pedagogy of student virtual engagement is effective. The findings corroborate with frazer, Sullivan, Weatherspoon and Hussey (2017), which asserts that teachers'-students' relation through virtual learning is effective and qualitative.

The findings also revealed that teachers' performance on online teaching is low. This may be as a result of obvious hindrances to online classes, the expensive nature of the approach, shortage of electricity supply, complexity of assignment evaluation and submission. The findings of this study therefore is in opposition to that of Frazer et al (2017) which concurred that teaching performance through virtual classes is effective.

Finally, the study revealed that students' performance as a result of online teaching is low. This may be as a result of laxity on part of student, distraction and poor communication as a result of poor networking, poor vision by students, poor inter-relationship among students, sudden introduction of virtual classes without prior practice and learning. The result of the findings is in disarray with the findings of Herman and Banister (2007) which asserts that online teaching is effectiveness in delivery classes as it concerns communication and pedagogy of teaching. The present study equally shows that virtual classes are very expensive to operate which makes the performance of teachers and students to be low. Kemp and Griere, (2014) disagreed with the present study which indicated that the cost of running virtual class can be minimized.

## **Conclusion**

The study investigated the effectiveness of virtual learning on teachers' pedagogy and students' performance in Ikeduru local Government Area, Imo state, Nigeria. Three research questions were addressed. From existing literature, the study unraveled the concept and important of virtual learning as well as its attendant debilitating factors especially with reference to developing countries like Nigeria.

In the overall context, it is the humble submission of this study that virtual learning has come to stay considering the potentialities it holds in bringing people in diverse environment together for the purpose of teaching and learning. Virtual learning is therefore highly consequential in fostering teacher's pedagogy and student's performance especially in an era of Covid-19 pandemic when physical gathering of large populations have been largely discouraged.

The study therefore insists that for virtual learning to yield required objectives, relevant infrastructures and devices, be put in place by the government parents and other relevant stakeholders in the education system.

### **Recommendations**

1. Private Secondary School teachers should be trained and motivated on the online innovative teaching/learning. Parents should ensure adequate monitoring to their children so as to motivate them towards doing assignment and other relevant requirement.
2. Teachers should try to motivate the mind of students to draw attention into active participation and encourage them to stay connected through the online or any social media platform.
3. Government should envelope a well-developed digital economy in Nigeria, this could be achieved through intense digital technology penetration.
4. Government should address the issue of power failure and internet services so as to ensure speed and efficiency in virtual learning class.
5. Parents should also be sensitized on the need to encourage and support their children/ward towards full and committed participation o online learning.

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