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LECTURERS' AND STUDENTS' PERCEPTIONS ON THE UTILIZATION OF FLIPPED CLASSROOM FOR EFFECTIVE INSTRUCTIONAL DELIVERY IN PUBLIC TERTIARY INSTITUTIONS IN ANAMBRA STATE

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Abstract

The study examined lecturers' and Students' perceptions on the utilization of flipped classroom for effective instructional delivery in public tertiary institutions in Anambra State. The study adopted the descriptive survey research design. Two research questions guided the study. The population of the study comprised Six public tertiary institutions in Anambra State. Total enumeration sampling technique was utilized thus all the Six government tertiary institutions were used for the study. 50 lecturers and 100 students were selected in each of these public tertiary institutions as respondents totaling 900. A 17- item questionnaire titled "Lecturers' and Students' Perceptions on the Utilization of Flipped Classroom Questionnaire" (LSPUFDCQ) developed by the researchers was the instrument used for data collection. The instrument was validated by two experts in Educational Management and Policy, and One expert in Environmental Management, all from Nnamdi Azikiwe University, Awka. The reliability indices of 0.77 was determined using Cronbach Alpha. Data collected were analyzed using mean scores rated at 2.50. The findings of the study revealed but not limited to: there is inadequate provision of relevant flipped classroom materials in tertiary institutions in Anambra State. Also, the lecturers and students did not see the essence of flipped classroom strategy. The researchers therefore recommended that the appropriate agencies should expedite action in the provision of needed flipped classroom facilities to ensure credible utilization of flipped classroom for effective instructional delivery in public tertiary institutions.

Keywords: Flipped classroom, Tertiary institutions, instructional delivery.

Introduction

Education is a means of transforming the society through technological and scientific advancement. Scientific advancement can only be achieved if students are innovative, creative, and skilled enough to apply new educational ideas. Education is a veritable tool in transmitting relevant knowledge, skills, information and values to the learners. This is the reason Ojujoh (2024) declared that education propagates national development because it equips and fortifies the beneficiaries with needed knowledge, skills, character, techniques and information for the advancement of the economy. One then wonders why many students fail to achieve the ultimate goal of education which is to be useful to themselves and the society. This is probably because the process of schooling has some enormous challenges that prevented interested learners from failing to achieve their aims. This could be traced to the problems posed with face- to -face method of instructional delivery in schools that requires physical contact. Covid- 19 experience has necesitated the need for distance learning and to find alternative teaching approach to combine with the traditional face- to- face method to facilitate instructional delivery in tertiary institution. One of such strategy is the use of flipped classrooms.

The flipped classroom (FDC) model is one of many ways to incorporate active learning into course delivery. It is an innovative approach that blends flipped learning with demonstration-based instruction to improve student engagement and understanding. Gotom and Ozoji (2020) defined Flipped classroom as a mode of instruction that uses audio visual forms of instructional technology to present direct instruction at home prior to the classroom lessons. According to Zainuddin, and Halili, (2016) flipped classroom is a teaching method that delivers lecture content to students at home through electronic means and uses class time for practical application activities.

Flipped means turning the inside out or the outside in, so that the part which used to be the outside becomes the inside and vice versa. It involves diametric application of information and communication technology (ICT) facilities to improve teachers' effectiveness and students' assimilation ability for the attainment of educational objective, therefore, requiring more effort, time, and commitment on the part of the teachers and learners. This is because for a teacher or a learner to effectively utilize flipping method, such a teacher or a learner must possess ICT skills. This is in line with the assertion of Poon (2014), that for a teacher to be effective in the era of online learning, the teacher has to employ Information and Communication Technology skills. In essence, teachers therefore must learn to apply this radical pedagogical approach (flip) of inverting teacher led instruction with take home assignment. Flipped teaching technique takes what was previously class content (teacher led instruction) and replaces it with what was previously homework (assigned activities to be completed at home) now taking place within the class.

According to Gotom and Ozoji (2020), flipped classroom means offering short video lectures at home, and using class time for application of the materials learned at home. This method is mostly dependent on technology as against lecture formatted classroom which involves students' presence in the class, listening, jotting key points or making notes and so on for future reference, while the teacher applies methods such as; lecture, interactive, or demonstration methods at best abilities to achieve the set objectives of the programme.

Demonstration is the process of showing by reason or proof, making clear by use of examples or experiments. Demonstration classroom involves the use of presentation of procedures and processes to provide concise information. According to Gotom and

Ozoji (2020), flipped classroom approach has become a popular pedagogy in many education institutions around the world.

The basic notion of flipped classroom approach is to deliver the teacher's lecture or demonstration method before the recipients through online videos, in order to free-up the inclass time for active learning, practical and problem solving activities. Actually, flipped classroom is a mixed method. Its features starts with pre-class preparation of checking videoes, instructional materials , stimulations before class which will be used for inclass teacher or student led discussions, which encourages active learning, critical thinking, peer collaboration, feedback are received and real technology integration are experienced in the use of multimidia which reinforces learning. Flipped classroom therefore, refers to a method of teaching and learning in which the teachers' demonstrative teaching method is covered in a video for students to watch at home and come to the workshop, farm, laboratory, or field, and tryout what the teacher has demonstrated. It is a combination of traditional method and the modern methods of instructional delivery. Actually, it is a technology enhanced traditional method which has many definite advantages. It has been be proven that the flipped classroom has numerous advantages over traditional method because it allows students to learn new materials at their own pace, pause the video and take notes and process information (Bergmann &Sams, 2012), while the purpose of teaching using a demonstration method is to show the process of occurrence of an event according to the teaching materials, how they are attained and the ease to be understood by the students in teaching learning (Haruna, Tolorunleke, and Aliu, (2023)).

This teaching model is useful when the lecturer wants to engage students with activities to be done outside the class time. This helps the lecturer to make the classroom an active learning environment, allows students learn at their own pace, and allows the lecturer attend to the needs

of each individual student. In line with this view, Nwosisi, Ferreira, Rosenberg, and Walsh (2016), noted that flipped classroom technique has the innovative approach in improving the quality of instructional delivery. The situation in most higher institutions in Anambra State appears to suggest that some lecturers undermine teaching effectiveness in their schools by not utilizing blended learning. Blended learning is an educational method that combines with traditional face-to-face classroom instruction with online learning. It has the advantage of allowing students engage with content both in person and online and also, providing personalized learning experience to students. Flipped classroom is a type of blended learning where students learn new concepts online and apply them in the classroom.

The lecturers do not encourage students to integrate theory and practice together because of some challenges of power, funds, inadequate materials to learn new things, need to attend conferences and workshops. Lecturers in some cases, appear less concerned in providing new skill development to students through flipped classroom. This situation corroborates Emeka, and Thompson, (2021) assertion that most lecturers do not possess computer skills to use ICT in their instructional delivery functions as regards to the use of mixed method to enhance learning.

In the context of this study, flipped classroom is a mixed method of instructional delivery, (flipping and demonstration) usually applied in the teaching of practical or psychomotor skills mostly in sciences, technical courses and sports. In flipped classroom, class time is often used by the teacher to integrate new knowledge, and for student collaboration, skill development, presentation, and problem solving, to foster a deeper understanding of content (Nwosisi, Ferreira, Rosenberg, and Walsh, (2016), unlike the lecture – planned classroom which is multitasking for the reason that class time is dedicated to listening, processing information, sketching and writing and such can impede learning since the working memory is limited in information it is able to process and store.

According to Hamad, McKnight, McKnight, and Arfstrom, (2013), when working memory is overwhelmed with information, the process of learning is disrupted. Suffice it to state, that flipped classroom can induce students and teachers interest for effective delivery of instruction in universities if adequately utilized, since it utilize social media as its modus operandi. One issue that can hinder progress in the use of flipped classroom in instruction is inadequate material resources.

Material resources could equally pose another hindrance to effective instructional delivery because it is a potent factor to qualitative and quantitative education. It is premised on this discourse that Ikegbusi, Eziamaka and Iheanacho (2021) averred that school facilities or material resources are essential to develop the cognitive areas of knowledge, abilities and skills that are crucial for academic achievement. This implies that in the face of lack or inadequate provision, effective instructional delivery would be deficient first by this material resource inadequacy. It is equally imperative to also provide necessary online materials that could foster effective instructional delivery. It is based on this that Tadesse and Muluye (2020) stressed that establishing virtual class infrastructure makes for effective instructional delivery in schools. Prior to the current world-wide digitalization, formal education has always been carried out in the school-setting under the four walls of the classroom through the process of schooling. E-learning which gained prominence during the Covid-19 era has continued to create significant impact in the field of education and even beyond.

Basira (2020) acknowledged the above opinion and reiterated that the importance of e-learning in field of education cannot be over emphasized in this era of globalization. The scholar went further to elaborate that the emergence of e-learning in education has paved

ways for more innovative teaching and learning, access to vast and recent information for scholars, researchers and students in the academic field.

There are various categories of e-learning or online teaching and learning among which is the flipped classroom. Flipped classroom is a hybrid or blended learning process also referred to as inverse learning. Flipped classroom provides learners the opportunity to access course material online through teacher-guided videos, presentations, learning management systems, evaluative questions and quizzes.Others are articles, vodcasts and answering questions. Flipped classroom is a pedagogical strategy that ensures effective teaching and learning delivery, this explains why Bull-Fabrega, Sanovas, Ruiz-Munzon and Filho (2019) emphatically stated that flipped classroom is a teaching method that allows introduction of theoretical contents of learning materials outside the class through questions asked by both the teacher and the learners. Apparently, flipped classroom is a blended learning arena that is both physical and virtual, which has been positively influencing teaching and learning outcome such as motivation and academic scores. Say, and Yildirim (2020), affirmed that it is an inverse learning that is interactive. According to the scholars, question and answer sessions lead to discussions that deepen understanding of course contents through clarifying of grey areas or those that learners find confusing. This is followed by learners engaging in assignments or hands-on exercises where their acquired theoretical knowledge is put into practice (Idialu, 2021). Say and Yeldirim (2020) equally posited that there is a change in the roles of participants in the teaching-learning process with the educator as the guide and counselor and the student taking responsibility for learning with more class time dedicated to application of knowledge gained in pre-class time.

Judging from the above, higher education which is also known as tertiary education which deals with the production of high level manpower needs of the nation, is in dare need of

flipped classroom so as to instil relevant skills and information effectively. It is from this perspective that the researchers desire to examine the extent of material provision, and perception of the students/lecturers on the utilization of flipped classroom for effective instructional delivery was aroused. Utilization of flipped classroom refers to the judicious application of skills and techniques and systematic manipulation of technologies to enhance learning. It has the following benefits- improves students understanding, encourages active learning,supports different learning styles, and enhances classroom efficiency. According to Long, Cummins; and Waugh, (2017), utilization is the use of available resources, tools or instruments to achieve a particular purpose. In this context, utilization of flipped demonstration classroom refers to the effective use of flipped method in delivering demonstration class.

The main purpose of the study is to examine the lecturers'and students' perceptions on the utilization of flipped classroom for effective instructional delivery in public tertiary institutions in Anambra State. Specifically, the study is meant to:

1. Find out the extent flipped classroom materials are provided in public tertiary institution in Anambra State.
2. Determine the perception of the students/lecturers on the utilization of flipped classroom for effective instructional delivery in public tertiary institutions in Anambra State.

Method

The study adopted descriptive survey research design. The design was used because the researchers wanted to collect information on lecturers' and Students' perceptions on the provision and utilization of flipped classroom for effective instructional delivery in public tertiary institutions in Anambra State. Descriptive survey design was employed. The population of the study comprised Six public tertiary institutions in Anambra State. Total enumeration sampling technique was utilized thus all the Six public tertiary institutions were used for the study. 50 lecturers and 100 students from each of these public tertiary institutions totaling 900. The researchers developed an instrument named "Lecturers' and Students' perceptions on the Utilization of Flipped Classroom Questionnaire" (LSPCUFDCQ) which was used to elicit information from the participants. The questionnaire was divided into two parts namely A and B. Part 'A' is made of personal details of respondents and B is made up of 17 items structured questionnaire on four- point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE) weighted at 4,3,2 and 1 respectively. The validity of the instrument was ascertained using experts in relevant fields. Internal consistency reliability test was conducted and yielded an index of 0.77 thus considered reliable. The administration of the instrument was carried out by the researchers and four trained research assistants. The collected data were coded, weighted and analyzed in accordance with the research questions. Mean and standard deviation was used to answer the research questions. Any mean that is above 2.5 bench mark is taken as high extent and mean that is less than the bench mark, is rated low extent.

Results

Research Question 1: To what extent are flipped classroom materials provided in public tertiary education institution in Anambra State?

Table 1: Mean scores of the Lecturers and Students of public higher institutions on the extent flipped Classroom Materials are Provided in Public Tertiary Institutions in Anambra State.

	Lecturers N=300			**Students N=600**		
To what extent are the following flipped classroom materials provided in your school?	**Mean**	**SD**	**Remark**	**Mean**	**SD**	**Remark**
1. Smart phones	2.13	1.14	LE	2.16	1.06	LE
2. Laptops	2.35	0.98	LE	1.92	1.08	LE
3. Video Packages	2.03	1.03	LE	2.02	1.05	LE
4. Audio packages	2.39	1.02	LE	1.83	1.05	LE
5. Internet Facilities	2.37	1.07	LE	2.00	1.10	LE
6. Edu Canon	2.20	1.08	LE	2.04	1.12	LE
7. Vodpods	2.33	1.15	LE	2.13	1.19	LE
GRAND MEAN	**2.34**	**1.00**	LE	2.32	**1.12**	LE

Data in Table 1 shows that flipped classroom materials are to a low extent provided in public tertiary education institution in Anambra State with item 1- 7, having their mean scores between the range of 2.35 – 1.83 for lecturers' and 2.16 to 1.83 for students' which is below the benchmark of 2.5 representing low extent. This implies that flipped classroom materials are to a low extent provided for instructional delivery in tertiary institutions in Anambra State. The grand mean gave rise to 2.34 with 1.00 and 2.03 with 1.12 for both the lecturers' and students'.

Research Question 2: Research Question 2: What is the lecturers' and Students' perception on the utilization of flipped classroom for effective instructional delivery in public tertiary education institutions in Anambra State?

Table 2: Mean Scores of the Lecturers and Students on their Perception of the utilization of flipped classroom for effective instructional delivery in Public Tertiary Institutions in Anambra State.

	Lecturers N=300			**Students N=600**		
What is the level of your agreement on your perception of the use of flipped classroom in your school?	**Mean**	**SD**	**Remark**	**Mean**	**SD**	**Remark**
8. It is students-based teaching and Learning	2.04	2.04	LE	2.00	1.47	LE
9. Makes room for individualized attention.	2.25	2.25	LE	2.19	1.54	LE
10. Encourages group discussions	1.70	1.70	LE	2.05	1.64	LE
11. There is room for hand-on class activities	2.26	2.26	LE	2.03	1.60	LE
12. The instructor guides the students to understand the concept	2.05	2.05	LE	2.00	1.34	LE
13. The students are allowed to study the topic first	2.00	2.00	LE	2.07	1.62	LE
14. There is provision of video lesson	2.05	2.05	LE	2.00	1.60	LE
15.Students should interact with instructor to get feedback on course content.	2.20	2.20	LE	2.02	1.62	LE
16. Students use the knowledge gained from the flipped classroom for problem solving	2.09	2.09	LE	2.02	1.62	LE
17. The instructor clears confusing aspects of the content and assist students.	2.03	2.03	LE	2.01	1.58	LE
GRAND MEAN	**2.01**	**1.31**	**LE**	**2.33**	**1.62**	**LE**

The Data in Table 2 showed that the mean scores of lecturers for item 8- 17 are within the range of 1.70- 2.25 and 2.07 – 2.01 for students indicating low extent of utilization of the items. This result indicates that lecturers' and students show a low extent in the utilization of flipped classroom. This is because the strategy uses students- based teaching and learning, gives room for individualized attention, encourages group discussions, gives room for hand-on class activities, the instructor guides the students to understand the concept, students are allowed to study the topic first among others are students'/lecturers' perception of the extent of utilization of flipped classroom for effective instructional delivery in public tertiary education institutions in Anambra

State. The grand mean 2.01 with SD of 1.31 and 2.33 with the SD of 1.36 for lecturers and students respectively indicate low extent of utilization of flipped classroom for instructional delivery in tertiary institution.

Discussion

It was found out that there was low extent of lecturers' and students' provision of flipped classroom materials for instructional delivery in public tertiary institutions in Anambra State. This finding is supported by He and Warschauer (2016) who reported the need for learners to acquire equipment like smart phones, tablets; as well as possess internet facilities. The authors stressed that learners should be monitored to ensure they do their assignments during out- of -class and in class. This finding is not surprising owing to the fact that these materials are expensive to be procured for schools. There is absolute need for tertiary institutions to provide these material resources for effective instructional materials in form of smart phones, laptops, video packages, internet facilities, tablets and so on. This result is not surprising because insufficient supply of materials could lead to production of half-baked graduates who cannot defend their certificates or become self-employed.

The finding of the study shows that the extent of lecturers' and students' utilization of flipped classroom for effective instructional delivery in public tertiary education institutions in Anambra State was low. This affirms the finding of Idiala, (2022) who revealed that in spite of the positive contributions of flipped classroom to learning outcome, it is not without challenges. And besides, this strategy might not reduce the teachers' duties because it actually increases them as they prepare for out- of and in-class activities. These challenges come up if it was loosely implemented and learners are not monitored to ensure they follow the process.

Conclusion

Based on the findings of the study, it was concluded that Lecturers' and students' perceptions on the utilization of flipped classroom is dependent on the provision of material resources and proper awareness and benefits of flipped classroom in tertiary education.

Recommendation

Following the findings and conclusions, it is recommended as follows;

1. The government should provide necessary flipped classroom materials to aid students to clearly understand the concept and also, to enforce the utilization of flipped classroom in all tertiary institutions to enable the students harness the benefits therefrom.
2. There is need for orientation and enlightenment on the essence of flipped classroom so as to arouse the students and lecturers interest and desire to use it in instructional delivery.

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