
Effective Integration of Flipped Classroom Strategies for Instructional Delivery in Geography in Nigerian Schools

Ekpoto, David Francis¹, Nkanu, Celestine Unoh^{1*}, Offiong, Agnes Edet¹, Ugah, Joseph C.² and Egbulefu, Lilian Chidinma²

¹University of Calabar, Cross River State, Nigeria.

²University of Nigeria, Nsukka, Enugu State, Nigeria.

*Corresponding author email id: unoh@unical.edu.ng

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Abstract – The effectiveness of Geography instruction in Nigerian secondary schools is pivotal to students in the science classes especially those who have interest in Environmental and Geography related advanced studies. To this end, instructors and curriculum planners must explore effective instructional strategies and communicate their instructional contents using innovative styles that are not only constructive but also ensure active contribution of students in the teaching-learning course. Studies over time and across different places have consistently yielded results that tend to emphasize that such strategies ultimately maximized the achievement of laid down instructional objectives. Flipped classroom has been recognized as a discovery learning medium that puts the learners in charge of the learning process. It has been proven effective for both individualized and cooperative students' learning, with maximum benefits accruing to both students and instructors. This paper x-rays the integration of flipped classroom instructional strategies in Geography teaching-learning situations. It further contends that the integration of flipped classroom strategies into Geography instructional contents delivery in Nigerian schools will enhance students' enrolment and participation in learning activities.

Keywords – Flipped Classroom, Geography Education, Innovative instructions, Nigerian, Secondary School.

I. INTRODUCTION

The advent of technology especially the aspect of information and communication technology (ICT) has captured everything about man's existence. Today, virtually nothing relevant is done anywhere in the world without ICT. Put differently, there is nothing done anywhere in the world that commands wide acceptance among humans without ICT. Whether it be farming, manufacturing, commerce, teaching-learning, etc. It therefore behooves educators that intend to stay relevant in their respective fields to buy into the innumerable benefits that integration of any aspect of ICT offers by deploying relevant in classroom content delivery.

In recent times, the widespread poor achievement of students in most subjects taught at the secondary school level in Nigeria including Geography have elicited so much attention. While a number of studies have attributed the scenario to student-related factors such as peer influence, study habits, self-esteem, socioeconomic status among others (Ekpoto et al, 2021); school-related variables such as conducive classrooms, laboratories, dearth of qualified teachers; as well as conventional teaching methods, a look at innovative teaching approach might bring about the desired result that appears to have eluded the educational system in Nigeria for quite some time now.

No doubt, instructional strategies adopted or employed by a teacher in classroom content delivery could make or mar the expected outcome of teaching-learning no matter how versed he might be in the subject concerned. Quite often, most Geography teachers utilize lecture method. Lecture method is a traditional (conventional) chalk-talk method that involves a teacher delivery facts, ideas or contents to students to students (Ezeudu et al,

2014). It inspires routine memorization and regurgitation of ideas or facts (Bliss, 2006 in Ezeudu & Gbendu, 2020). Researchers have averred that lecture method, although, suitable for large class sizes and quick coverage of curriculum contents, is teacher-dominated and ineffective in attracting students' attitude towards Geography (Ezeudu et al, 2014; Abidoeye, 2015). To avert the ugly scenario occasioned by the monotonous use of lecture method in Geography classes in Nigerian schools, there is urgent need for teachers to switch to the use of innovative teaching styles such as flipped classroom strategies.

This paper intends to explore the application of flipped classroom in enhancing effective instructional strategy in Geography in Nigerian Schools. The objective is to improve students' attitude towards Geography, especially in the area of enrolment and active participation in Geography learning activities with a view to improving their achievement in Geography.

II. THE CONCEPT OF GEOGRAPHY

The term Geography has been defined variously by several scholars across the ages. Often times, people have misconstrued this to mean just learning about countries, their crops, landforms and people-the 'states and capitals' approach you might say. However, Geography is far more than just states and capitals. Geographers over the years have defined Geography differently based on their perspective. Acherman (1970) in Ibiang and Ofem (2018) asserts that Geography is concerned with facts about the wealth of continents, ways of life, occupation, man's interaction with the environment, the impact of the environment on man, and about international relations and development i.e., globalization. Geography also seen as an environmental science which studies all systems of air, land, water, energy and life in relation to man (Akorade, 1984; Ojo, 1999 in Ibiang & Ofem, 2018). In a more simplified version, Ojo (1999) sees Geography as a course that is involve with answering the question 'what', 'where', 'why' and 'what of it'?

Furthermore, Geography can be seen as a discipline that deals with the spatial interrelationships (connections across space) which exist between people, their activities and the physical environment (www.shsu.edu n.d.). Geography is such a broad discipline and comprises many facets. It is concerned with people of all colours, creeds and races; people of all status-highly educated, crude/illiterate, rich, poor, etc.; as well as their activities in the physical environment they find themselves on the earth. The National Geographic Society (NGS, 2021) defines Geography as the study of places and the relationships between people and their environments. From this Society's view, one can infer that Geography encompasses everything about man, his interactions with his environment in all places on earth. This implies that notwithstanding the varying definitions of Geography, the discipline probes into the spatial relationship that exists between man and the earth's physical features.

The concept of Geography can be better appreciated by taking a look into the four traditions of the discipline -spatial analyses of natural and the human phenomena, area studies of places and regions, studies of man-land relationships, and the Earth sciences. These traditions open up Geography to include the study of the inter-relationships between the physical environment, the economy and the society within the context of the changing world (environment). It involves how distance, direction, position and human behavior affect spatial interactions among occupants of space. In examining spatial interactions, Geography focuses on making predictions of emerging patterns of population, settlements, soils, water and man's behavior. Thus, Geography is the science that studies the description of physical features and phenomena on the earth and the interrelationships that exists between man and his environment.

III. RATIONALE FOR GEOGRAPHY INSTRUCTIONS IN NIGERIAN SCHOOLS

The reasons for teaching Geography in Nigeria are primarily to provide knowledge and skills for problem-solving; to identify and analyze spatial interactions and interpret same in line with life situations, to make observations and predictions of spatial patterns for future use (Itobo & Ofem, 2018). The foregoing is elaborated more in the work of Muhammed et al, (2021) who outlined the following among others as the reasons for teaching geography:

(i). *The need for Selective Teaching:*

This derives from the fact that every citizen needs a certain understanding of the knowledge of geography to be able to locate geographical features. Selective teaching becomes necessary since it helps curriculum expert select useful items that can add value to the society for study.

(ii). *Basis for Further Studies:*

Geography is taught in secondary schools in Nigeria as a foundation for further studies in the tertiary institutions. Besides the direct branches, disciplines such as urban and regional planning, architecture, surveying, etc. requires some foundational knowledge in Geography at the secondary level of education.

(iii). *Appreciation of Man's Changing World:*

Geography must be seen from a lively standpoint, within which present and future problems are described based on the development that led to the existing situation. In line with man's constant interaction with his environment, Geography equips students with sound knowledge with which to relate with the environment in order to get the best nature offers from it.

(iv). *Towards International Solidarity:*

Geography is taught in Nigerian schools with a view to instilling in the child cherished ideals of the interrelationship that occur among men all over the world. This aims at encouraging peaceful coexistence among men anywhere in the world regardless of ancestry, colour, creed or race.

(v). *Passing Examination:*

Geography is also taught in Nigerian schools for the purpose of gathering of knowledge towards passing final examinations such as Senior Secondary Certificate Examination (SSCE) conducted by National Examination Council (NECO), West African Senior Secondary Certificate Examination (WASSCE), National Business and Technical Board (NABTEB), Unified Tertiary Matriculation Examination (UMTE)/ Joint Admission Matriculation Board (JAMB), General Certificate Examination (GCE) A level, etc.

IV. CHALLENGES ASSOCIATED WITH TEACHING AND LEARNING GEOGRAPHY IN NIGERIAN SCHOOLS

The teaching and learning of Geography in Nigerian schools is currently faced with a number of challenges which include but not limited to poor students' achievement, reduced enrolment at secondary and even tertiary education level, dearth of instructional resources and professional teachers, and government unstable educational policy (Aun, et al, 2020). The aforementioned challenges are corroborated by Aderogba (2012) as follow:

(i). *Professional Teachers' Problem:*

Most Geography teachers in Nigerian schools particularly at the senior secondary level are nonprofessional or unskilled in the field of Geography. More often, they are either graduates of geology or some environmental science disciplines like urban planning, surveying, etc. There is therefore need for recruitment of competent Geography teachers at the secondary education level in Nigeria since its shortage has occasioned the abysmal enrolment of Geography undergraduates at the tertiary level of education in Nigeria. Flipped classroom instructional strategies have the potential to address this challenge by boosting students' interest, achievement and enrolment. This could in turn form the basis for raising future qualified and highly spirited Geography teachers.

(ii). *Inappropriate Teaching Methods:*

Inappropriate teaching strategy has impeded the effectiveness of the teaching of Geography in no small way. The flipped classroom is a student-centered, and an activity-based teaching method that can squarely address this challenge and turnaround the tide for the good of the discipline.

(iii). *Subject Matter Related Problem:*

As important as Geography is, as a discipline of learning, the inability of some unskilled teachers to understand most of its concepts constitutes serious challenge to the teaching-learning of Geography. Noticeable among such themes or concepts are map reading (interpretation, signs and symbols, measurement, bearing and direction), and many others. Given the difficulty encountered by both teachers and learners in properly handling these concepts (topics), many Geography teachers skip such topics in class. A situation that brings about students' inability to answer questions on such topics in their certificate examination, thus, making them perform poorly in Geography and reduces its enrolment in tertiary institutions. This challenge could be addressed by adequate and conscientious deployment of flipped classroom strategies.

(iv). *Dearth of Instructional Materials or Field Studies:*

Geography as a creative, problem-solving, practical and intellectually exciting course of study needs adequate instructional aids as well as field studies. Ajibade and Raheem (2009) asserted that the best Geography laboratory is the world outside the classroom. In essence, no matter how accurately planned and well delivered all classroom knowledge might be, it only remains a shadow of the reality that abounds outside the classroom. Nevertheless, Nigerian schools are not only plagued with inadequate provision of instructional resources such as Geography textbooks, maps atlases, etc., but also faced with seldom fieldtrips. A situation that has made Geography looked more of an abstract subject to secondary school students in Nigerian schools than the very practical subject it actually is. A well-planned application of flipped classroom can address this challenge also.

(v). *Educational Policy based Challenges:*

Nigeria currently operates 9-3-4 system of education which bequeaths 3 years duration for senior secondary education where Geography is being taught (FRN, 2014). Geography studies man, his activities and interactions with his physical environment. Given its pivotal role in man's existence in his environment, Geography deserves to be studied as one of the compulsory subjects just as Mathematics, English Language and Nigerian language (Hausa, Igbo and Yoruba). Regrettably, Geography does not enjoy the status of any of the above-mentioned core

subjects (WAEC syllabus, 2012). As a result, only a few students offer Geography to make up the number of required credits passes to secure admission for further studies in tertiary institutions of learning (Okunloye, 2005).

(vi). *Poor Funding/Remuneration of Teachers:*

Poor remuneration of teachers, inadequate/obsolete infrastructures as result of poor funding of education in Nigeria, equally impedes the effective teaching-learning of Geography. Overcrowded classrooms of up to 50 students per teacher is commonplace in most Nigerian schools. No meaningful teaching-learning exercise can thrive in an ill-equipped and densely overcrowded classroom. This is so because the conducive atmosphere for effective teaching-learning is grossly lacking (UNICEF, 2012).

(vii). *Lack of Workshops, Seminars and Conferences:*

Regular attendance at workshops, seminars and conferences provide opportunities for in-service training and re-training on current trends and effective skills for efficient job performance. There is no gainsaying, that the seldom organization of conferences, seminars and workshops for Geography teachers in Nigerian schools have resulted in serious challenges to the effective teaching of Geography in Nigeria. The need for Geography teachers to meet regularly to learn, share ideas, correct themselves where possible and chart a new course for the sustainability of effective content delivery in teaching Geography in Nigeria is overdue.

V. CONCEPT OF FLIPPED CLASSROOM

Flipped classroom is a pedagogical strategy that is growing in popularity as a trend among educators and learners. It is most times refer to as inverted classroom, backward classroom, switched classroom, the flip, reverse classroom etc. The Flipped Learning Network [FLN], (2014), describes flipped classroom as a learning strategy in which traditional teaching is interchange from the instructor led to student-centered instructions with the former performing a facilitator role. Meier, (2013) simply view flipped classroom as a reverse strategy of traditional classroom where learners are allowed to discover learning themselves thereby making them active participants rather than passive learners in a teacher dominated classroom. The flipped strategy reverses the conventional classroom practices by sharing lectures outside of class time for individuals or group as homework, while class time is reserved for class discussion, presentations, and execution of practical projects (Panopto, 2021). Learners are meant to study their supposed classroom work as homework through reading, drawing, watching instructional Video (s) etc, only to returned to the classroom to lead the discussion with the teacher as a facilitator.

VI. TYPES OF FLIPPED CLASSROOM

Scholarly literature abounds with many types of flipped classroom instructional strategies. The aim is to customize instructional strategies that best suit the subject and learner's type to help them learn most appropriate. The most basic types are explained below:

(i). *Traditional Flipped Classroom:*

It is the primary type of flipped classroom and most suitable to start with. Usually, in the traditional flipped classroom, students are given or directed to a topic or video lesson to watch and learn at home and do their homework in class where fellow learners and instructors can help them to assimilate material better as the inter-

-act.

(ii). *Flipped Mastery:*

This type is higher in standard than the traditional flipped method. Here, students are given learning task individually to study at their pace, the students are instructed to interact with the material and attain mastery in the subject matter on their own while the class time is use for practical. Learners are expected to gain mastery of the learning materials after which they will be subjected to an evaluation process, those who obtain a low grade on assessment will be asked to repeat.

(iii). *Problem Based Learning Flipped Classroom:*

As the name implies, learners explore a topical issue and learn through the process of solution findings, in the case of a crossroad, they flipped the process to watch a video to get solutions and return to complete their assignment.

(iv). *Inquiry Flipped Classroom:*

This type applies to mostly science related subjects such as Geography but not limited to the classroom practices. Learners may sometimes watch a video that engages them academically then return to the lab or class time to explain the concept or explore a similar scenario.

(v). *Group-Based Flipped Classroom:*

In the group-based strategy, learning task emphasizes on group-bases. According to Thakare, (2018), after the learners have interacted with the learning materials, they will work collaboratively on the assigned task throughout the class time. This affords even the slow learners the opportunity for indebt learning through the explanation of the concept from the fast learners, thereby improving retention and motivation of the slow learners.

VII. INSTRUCTIONAL BENEFITS OF UTILIZING FLIPPED CLASSROOM

When flipped classroom strategy is effectively utilize in any instructional settings, several benefits accrue to both teachers and students respectively. Barquero, (2020); Panopto, (2021) listed the major benefits of flipping instructions to include:

A. Flipping Allows Students to Learn at their Pace:

In contrast with the traditional lecture methods where students learn, listens, and write notes simultaneously as the teacher dominate the teaching process. The flipping strategy allows the students to review any parts of the recorded instruction or re-read a topic on their own pace, thereby ameliorating classroom anxiety.

B. Increase Students' Motivation:

The changing roles involve in flipped classroom strategy makes students to see their efforts to be useful and learn in a faster pace, they are motivated to explore more. When students learn by doing things on their own, not memorizing, they tend to develop skills and apply them in their daily life which increases their ability to do more (Dexway, 2020). Since most flipping strategy involves instructional video which is transmitted through ICT resources, scholarly debates have supported it to increase learners' motivation positively. Johnson, et al, (20

-21) noted that excessive utilization of this ICT resources will motivate the learners negatively.

C. Flipped Learning Is Customized, Active, and Engaging:

When students cover a substantial amount of the course materials before class time, the teacher may devote the class time to engage the learners in presentations of practical experiences such as craft in-class to test the comprehension and mastery levels to effectively apply their knowledge in solving problems.

D. Improve Collaboration Between Students and Teachers:

When students are given task individually or in groups, they tend to discuss their challenges and breakthrough together before the class time. During the in-class presentation, they ask the facilitator questions to seek clarification to grey areas, thereby increasing collaboration with the teacher.

E. Role Changing or Students Become Teachers:

Students who may have effectively mastered their given concepts or task in turn teach their peers even during the class time while the class teacher moderate the process. Students who are more open to learn from peers than teachers' due pressure will do better while the learned task is also reinforced as the student teaches (Dodge, 2019).

F. Improves Teachers' Effectiveness:

The flipped classroom strategies, if effectively utilized, it will afford the classroom teacher more time and flexibility to carryout productive research for indebt knowledge in the subject matter, create time to evaluate students' performance to avoid delays. These will also enhance teachers' effectiveness in his/her assigned duties, since the students maximizes their time to discover, and master most task before the class time.

VIII. CHALLENGES ASSOCIATED WITH INSTRUCTIONAL UTILIZATION OF FLIPPED CLASSROOM

As peculiar to most instructional strategies, flipped classroom has a few impediments that make its effective usage more difficult especially in developing countries such as Nigeria. Some of the identified challenges include:

1. Lack of ICT Gadgetry:

The dearth of proper ICT tools for teachers to create suitable instructional video for flipped classroom, post a great challenge among educators. This has also contributed to the reason why teachers lack the motivation to use technology in our educational classroom.

2. Lack of Internet Access:

To effectively flipped a lesson or instruction, students and teachers must have assessed to internet service on their computer and other smart devices both at home and in class. This is a great challenge in Nigeria as poor internet access is the bane.

3. Lack of Student Discipline:

Learners who have not experience flipped learning, they may find it challenging switching instructional strat-

-egy. Learners may struggle with deadlines and may return to class without interacting with the lesson, thereby making the technique ineffective.

4. *Lack of Teaching Resources:*

For flipped classroom strategy to be successful and effective, teachers need good instructional content in every subject area. Lack of appropriate resources for designing the contents, is making the technique almost useless.

5. *Old-Fashioned Classrooms:*

Most conventional classroom settings in our learning institutions does not really support innovative instructional techniques like flipped classroom. Teamwork, originality, and collaboration are the core of this strategy but, promoting this approach is nearly impossible with students spending almost all day in traditional lesson.

6. *Lack of Facilities:*

In utilizing the flipped classroom, some facilities are highly needed for it to work perfectly. In our system today, some student and even teachers are lacking the facilities that flipped classroom needs to work with, such as smart devices and environment. Some teachers lack the knowledge of the equipment and how to use it to flip a class. Flipped classroom is useless without its facilities.

IX. PROCEDURES FOR EFFECTIVE INTEGRATION OF FLIPPED CLASSROOM INTO GEOGRAPHY EDUCATION

Being a new teaching method that is fast benching the traditional (chalk-talk) method of teaching, given its numerous benefits compare to the later, the following steps could bring about effective integration of flipped classroom into teaching-learning of Geography:

1. Prepare the desired lesson content into videos.
2. Send the prepared lesson content videos to the target students via social media or the prior agreed ICT learning platform.
3. Advise students to study lesson content at home.
4. Guide students to do assignment in class.
5. Paying more attention to students who have difficulty following or catching up with others. This enhances equal learning opportunity for all students.
6. Repeat the procedure for each lesson at the course of the semester/term always ensuring evaluation of each lesson at the end of each class.

X. CONCLUSION

The place of technology in making life more meaningful and convenient for man can be easily seen and appreciated in all aspects of life today. That being the case, it becomes germane for relevant authorities/ stakeholders in the discipline of Geography to buy into the myriads of benefits that abound in the integration of

technology in the teaching-learning of Geography. Especially, given the salient roles the knowledge of Geography plays in the maximization of the use of the resource's nature has endowed every society with anywhere in the world. No doubt, the results of such decision will speak for themselves in no time beginning from when Geography teachers who are at the forefront of implementing such pertinent decision adopt technology-based teaching-learning style like the flipped classroom strategy in the teaching-learning of Geography in our schools.

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AUTHOR'S PROFILE



First Author

David F. Ekpot, teaches Social Science Education courses in the Department of Social Science Education, University of Calabar, Calabar, Nigeria. He holds a B.Sc (Ed) in Geography Education and an M.Ed in educational Research, Measurement & Evaluation from the University of Calabar, Nigeria. He is presently an advanced Ph.D student in Geography & Environmental Education at the University of Nigeria, Nsukka (UNN), Nigeria. His research interest is Geography Education, Research, Measurement & Evaluation, and Environmental Education.



Second Author

Celestine Unoh Nkanu, is a master's student in the Department of Arts Education, (Educational Technology Unit), Faculty of Education, University of Nigeria, Nsukka. Currently, he is a lecturer in the Department of Curriculum and Teaching (Educational Technology Unit) University of Calabar, P.M.B. 1115 Calabar, Cross River State, Nigeria. A member of Educational Media and Technology association of Nigeria [EMTAN]. email id: unoh@unical.edu.ng



Third Author

Agnes Edet-Asuquo Offiong, is a PhD candidate in the Department of Social Science Education, Faculty of Education, University of Nigeria, Nsukka. Presently, she is a Lecturer in the Department of Environmental Education at the University of Calabar, P.M.B. 1115 Calabar, Cross River State, Nigeria. A member of World Council for Curriculum and Instruction [WCCI] Nigerian Chapter. **email id: agnes.offiong@unical.edu.ng**



Fourth Author

Joseph C. Ugah, is a PhD candidate in the Department of Arts Education, (Educational Technology Unit), Faculty of Education, University of Nigeria, Nsukka. **email id: ugah4dyear@gmail.com**



Fifth Author

Lilian Chidinma Egbulefu, is a master's degree student of the Department of Arts Education, (Educational Technology Unit), Faculty of Education, University of Nigeria, Nsukka. **email id: lilykingsreal7@gmail.com**