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EFFECTS OF ENRICHED VIRTUAL MODEL ON ENGLISH LANGUAGE ACADEMIC ACHIEVEMENT AND RETENTION IN SECONDARY SCHOOLS IN EBONYI STATE, NIGERIA

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ABSTRACT

The study was designed to determine the effect of Enriched Virtual Model (EVM) on secondary school students' English Language academic achievement and retention in Onueke Education Zone, Ebonyi State. Two research questions were answered and two hypotheses were tested at 0.05 level of significance. The study adopted quasi-experimental, pre-test, post-test, non-equivalent, control group design. The population consisted 1,966 SS2 students in the 72 public secondary schools in the study area. The sample size was 61 SS2 students. Simple random sampling technique was used to select two intact classes from two co-educational schools out of the 72. A total of 61 SS2 students comprising 24 males and 37 females, participated in the study. English Language Achievement and Retention Test (ELART), which was validated by three experts was used for data collection. The reliability coefficient of ELART was determined using K-R20 and was found to be 0.81. The mean was used to answer the research questions, while Multivariate Analysis of Covariance (MANCOVA) was used to test the hypotheses. The findings revealed that the students in experimental group who were taught English Language with enriched virtual model had higher mean gain than those in control group taught with conventional method. The male students had higher mean gain in the achievement and retention test than female students using enriched virtual model. It was concluded that Enriched Virtual Model is effective in teaching English Language to secondary school students. Consequently, recommendation was made among others that English Language teachers should be encouraged to adopt the use of EVM in the teaching and learning of English Language in order to enhance knowledge mastery and retention among students.

Keywords: Enriched virtual model, Academic achievement, Retention, English Language, and Senior secondary school.

Introduction

Education is recognized as the nation's greatest asset towards the quick development of its economic, sociological, governmental and human resources, hence it focuses on the integration of the individual into the society. The quest for improving education in this modern era is a concern to all nations because of the conviction that it is an instrument for empowering individuals through the

acquisition of skills and knowledge for development of the society. The Federal Republic of Nigeria (FRN, 2013) in the National Policy on Education through the national educational goals expressed that the acquisition of appropriate knowledge, skills, competencies, development of mental, physical and social abilities equip individuals to live in and contribute meaningfully to the development of the society. It is also a tool for developing potentials and inculcation of right values in individuals to make them become useful members of the society. Kemi (2020) noted that all the levels of education are vital to human learning and academic prowess but very significant is the impact of secondary school education as it serves as the link between primary and tertiary education.

Secondary education occupies a crucial position in the education system. According to Isiaka and Tiamiyu (2020), secondary school otherwise referred to as post-primary education is defined as the type of education that prepares students with the mindset of contributing their quota to societal development as well as preparing them for tertiary education. In Nigeria education system, English language is one of the core subjects taught in secondary school as well as the language of instruction in all levels of education.

English language is spoken and used by the majority of the world's populace as an essential tool for communication, education, international trade, cultural exchange, media, publications, internet and socialization. English language functions as the language of government and administration in Nigeria. Additionally, it is considered as the gateway to academic excellence. This makes it imperative for all secondary school students to be competent and proficient in the language especially the grammar aspect of it, because deficiency in it will result to poor achievement not only in the subject itself; but also in other subjects that are taught and written in the language. This may be the reason Udoye and Chituru (2019) asserted that, a secondary school student who does not attain a reasonable degree of proficiency in English Language will not make an outstanding progress in his/her studies. Proficiency in English Language especially in grammar in today's diverse society is the key to the world's proof of knowledge and a gateway to success in the global economy.

Teaching methods are different instructional procedures, techniques and tactics employed by teachers to make lesson content delivery easy and understandable. Ikwuka (2019) referred to teaching method as a systematic procedure employed by teachers in their attempt to make learning take place. Teaching methods are basically classified into two as conventional/traditional and innovative/learner-centred. These methods are being implemented in the teaching and learning process, but conventional method is the most predominantly used by teachers at all levels of education in Nigeria (Efiuvwere and Fomsi 2019). Teachers use this method in teaching all the courses, may be because it makes work easier for them. There is need for the adoption and widespread of technology for effective student-teacher communication. In view of this, teachers need to employ innovative methods that focus on students being directly and actively involved in the instructional process through interactive,

discursive, argumentative and problem-solving activities that conform with their different individualities in learning. Learner-centred method such as Enriched Virtual Model (EVM) that is capable of allowing students to actively engage in the learning process through personalized and collaborative learning experiences should be encouraged for improving students' learning outcomes in English Language.

Enriched Virtual Model is an aspect of blended learning model. Virtual learning refers to an environment where students study a digital-based curriculum taught by instructors usually online via video or audio. According to Chowdhury (2020), the enriched virtual model focuses on online teaching and learning with less on traditional instruction. The teacher is the facilitator in this process. Berga, Vadnais, Nelson, Johnson, Buro, HU and Olaiya (2021) opined that an enriched virtual model combines instruction in the learning process. In this study, EVM was carried out in three stages which are: online synchronous learning, online asynchronous learning and classroom discussion.

Online synchronous learning was designed to be observed online. Here, the teacher communicated with the students the real time and date for the lesson. The teacher and students are engaged in virtual class using computer or android mobile phones through synchronous learning. Through the platform shared with the students, the lesson content as well as the recorded video of the lesson content are shared by the teacher, then the teacher-students and student-student were engaged in academic interaction based on the shared contents. Here instant feedback are provided where necessary and it gives room for learners' active participation.

For asynchronous online learning, the teacher prepared lesson content in form of recorded video was uploaded in an agreed platform for the students to access and study at their own pace and convenience. The students after studying the lesson content were ready for the classroom discussion.

The classroom discussion takes place in the classroom situation. The teacher acts as the facilitator and the students are allowed to discuss all they have studied and learnt online. This involves student-student face-to-face discussion of the lesson content, doing classroom exercise based on the lesson content discussed. The students exchanged their exercise books for marking following the corrections supplied by the students and the teacher.

Academic achievement is one of the basic goals of education. It is the criterion for measuring the extent of students' level of knowledge acquisition. Ikwuka and Okoye (2021) asserted that academic achievement is the performance outcome of students in a given subject or course of study which is commonly measured in terms of scores, grades from tests, assignments and examinations. In this study, achievement in English language is the extent to which a student has been exposed to EVM attained the mastery of English language. This will equally give room to retention of what the students have learnt.

Retention of learned information can be defined as having the information stored in

long term memory in such a way that it can be readily retrieved. Retention is the degree to which new experience can be held in the memory and reproduced as at when required. Often times, students find it frustrating whenever they are unable to recall or remember some important information required for answering examination questions. This will make them to retain the materials learnt longer.

It is against this backdrop that there is the need to find out the effect of enriched virtual model on English language academic achievement and retention of secondary school students in Ebonyi State, Nigeria.

Statement of the Problem

The poor academic achievement of secondary school students in English language in both internal and external examinations pose great threat to academic well-being and societal development. Today's teachers are adopting various methods and using modern materials to improve the academic achievement of students. Unfortunately, despite the important position accorded to English Language in the education system in Nigeria, students' achievement in WAEC and NECO SSCE examinations of the language in Ebonyi State is still unsatisfactory. This may be as a result of their inability to acquire proficiency in the elements of the grammar of the language. The problem of this study is to find out if the use of enriched virtual model can improve students' academic achievement and retention in English language.

Research Questions

1. What is the difference in the mean achievement scores of students taught English Language using Enriched Virtual Model (EVM) and those taught using Conventional Lecture Method (CLM)?
2. What is the difference in the mean retention scores of students taught English Language using EVM and those taught using CLM?

Hypotheses

1. There is no significant difference in the English achievement scores of students taught English language using EVM and those taught using CLM.
2. There is no significant difference in the mean retention scores of students taught English language using EVM and those taught using CLM.

Research Method

Quasi-experimental pre-test, post-test, non-equivalent, control group design was adopted using intact classes. The population of the study comprises 1,966 SS2 English Language students in the 72 public secondary schools in Onueke Education Zone in Ebonyi State, Nigeria.

The sample was made up 61 SS2 students (24 males and 37 females) from two intact classes randomly selected from two secondary schools. English language achievement and retention test (ELART) consisting of 50 multiple choice items was used for data collection. The treatment lasted for six

weeks. The procedure is summarized as follows:

1st week: This covered the visiting of participating schools and briefing the research assistants.

2nd week: This covered the administration of pre-test to determine the equivalence of the experimental and control groups.

3rd-5th week: Here, three weeks were used for teaching the experimental and control groups the English language contents of noun phrase, adjective noun and pronoun using enriched virtual model and conventional method.

6th week: This was used for post-test administration. The data obtained from the pre-test and post-test of the two groups were analyzed using mean and Multivariate Analysis of Covariance (MANCOVA) statistics.

Presentation of Results

The results are presented with regards to the effects of EVM and conventional lecture method on students' achievement in English Language.

Table 1 Difference in the mean pretest and posttest achievement scores of students taught using EVM and CLM.

Method	N	Pretest	Posttest		Mean Gain	Adjust. Mean	
		Mean	SD	Mean	SD		
CLM	31	31.00	4.04	36.90	3.14	5.90	37.62
EVM	31	34.90	3.69	44.45	2.61	9.55	43.77

Data in Table 1 show the various means on achievement pre-test and post test scores of the students taught English Language with Enriched Virtual Model (EVM), and those taught using conventional lecture method (CLM). From the Table, the mean gain of the achievement show that Enriched Virtual Model (EVM) gained 9.55 while conventional lecture method (CLM) gained 5.90. The mean gain difference between the Enriched Virtual Model (EVM) and conventional lecture method (CLM) reveal that Enriched Virtual Model (EVM) is more effective in improving the achievement of students in English Language than the conventional lecture method (CLM).

Research Question 2. What is the difference between the mean posttest and mean retention scores of students taught English language using Enriched Virtual Model and those taught using the Conventional Lecture method?

Table 2 Difference in the mean Post-test and retention scores of students taught using EVM and those taught using CLM.

Method	N	Posttest		Retention		Mean gain	Adjust. Mean
		Mean	SD	Mean	SD		
CLM	31	36.90	3.14	40.87	2.99	-3.97	41.23
EVM	31	44.45	2.61	44.94	2.05	.49	43.73

Result in Table 2 shows the retention scores of the students taught English Language with Enriched Virtual Model (EVM) and those taught using conventional lecture method (CLM) in English Language. From the Table, the mean gain in retention shows that Enriched Virtual Model (EVM) is 0.49 with an adjusted mean of 43.73, while conventional lecture method (CLM) is -3.97 with adjusted mean of 41.23. The mean difference between the Enriched Virtual Model (EVM) and conventional lecture method (CLM) reveal that Enriched Virtual Model (EVM) is more effective in improving the retention of students in English Language than the conventional lecture method (CLM).

Discussion of Findings

The result of this study had shown that students taught using EVM achieved better than students taught using conventional lecture method (CLM). The significant difference could be as a result of the ability of the EVM to provide visual representations of the experimental procedures and the microscopic concepts which were seems to be made visible by EVM. This could also be due to the fact that EVM has the potential of making students learn more because fun and entertainment are natural ways through which students learn, therefore, improving achievement of students. The result of the study supports the views of previous researchers of Njoku and Eze-Odurukwe (2014) who indicated that students' performance are greatly improved when taught with enriched virtual model. The findings further showed that students taught English language using EVM had longer retention than those taught using CLM.

Conclusion

Based on the findings of the study, it was concluded that students who were taught English language concepts with EVM had higher mean achievement score-than those taught with conventional lecture method (CLM). The students who were taught using EVM also retained longer what they have learnt more than those taught using CLM.

Recommendations

Based on the findings and their implications, the following recommendations were made:

1. Since the use of EVM has been found to enhance achievement and retention in English Language, English language teachers should be encouraged to adopt the use of EVM

in teaching and learning of the subject.

2. Teachers of English Language should train, encourage and motivate students on how to apply Enriched Virtual Model in learning English language so as to improve their retention ability.

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