

INFLUENCE OF TEACHING METHODS ON STUDENTS' ACADEMIC PERFORMANCE IN SECONDARY SCHOOL IN ENUGU EDUCATION ZONE

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Abstract

The study focused on Influence of teaching methods on students' academic performance in Secondary School in Enugu Education Zone. Two research questions guided the study. Descriptive survey research design were used for the study. The research design adopted for this study was a survey design. Nworgu (2018) states that research design is the plan, structure and strategy of investigation, conceived so as to obtain answers to research questions and to control variance. The study covered all the secondary school in Enugu Education Zone. The population of the study includes all the students in the 31 secondary schools in Enugu Education Zone. Population of the study includes 13,462 students. Source of data: Post Primary School Management Board, (PPSMB) 2024/2025, (Statistic and Record Unit), Enugu Zonal Office. A sample size of 388 was determined by the use of formula of Taro Yamen. From the above calculation, the calculated sample size is 388 out of the population of 13,462 Secondary School students in the area. Purposive sampling techniques was use to select 3 secondary schools each from the 3 Local Government Areas that made up Enugu Education Zone. After that, simple random sampling was used to select 132 students from Enugu North, 128 from Enugu East and Isi-Uzo local government Area The instrument was structured questionnaire titled " Influence of Teaching methods on students academic performance in secondary school questionnaire (ITMSAPSSQ); which was structured based on the research questions that guided the study. To test the reliability of the instrument, a test-retest method was used. The correlation co-efficient obtained using the Cronbach Alpha method of estimating reliability was 0.75. This indicated that the instrument has a high level of reliability. The data was collected by the researcher. The questionnaire was administered to the respondents personally by the researcher. All the copies (100%) of the questionnaire were distributed and collected on the spot to avoid loss of some of item. Mean statistics were used for data analysis in order to determine the degree of respondent's agreement/disagreement on each of the scaling statement in the questionnaire, nominal values were assigned to different scaling statements as follows: Strongly agreed = 4, Agreed = 3, Disagreed =2 and Strongly disagreed =1. A cut off was determine by finding the mean of the nominal values assigned to the option in each questionnaire items. Hence any of the respondents therefore that have mean score of 2.50 and above were regarded as agree while any value below 2.50 was regarded as disagree. Findings of the study showed that inquiry method of teaching has positive influence on students' academic performance and that lecture method have negative influence on students' academic performance. From the findings of the study, the study recommended among others that ministry of Education or its relevant agencies should organize seminars and workshop for teachers at least once in a term in order to update their knowledge on the practice of inquiry base learning since it has the capacity of improving students attentiveness and interest.

Keywords: Teaching methods, academic performance, secondary school

Introduction

Education is widely regarded as a crucial tool for development, serving as a means to combat poverty, ignorance, and crime. This underscores why both individuals and nations prioritize obtaining functional education (Federal Republic of Nigeria [FRN], 2013). Quality instruction is central to educational outcomes. In many parts of Nigeria, school performance varies widely between schools and classrooms, raising questions about the role of methods in

teaching and learning. Teaching methods or prototype refers to style, approaches and strategies teachers use to facilitate teaching and learning. Teaching methods is the main factor necessary for impacting knowledge to the students or pupils. A number of methods have been tested and agreed upon by educators as good. None of the methods is however; perfect and effective for all situations but each of the methods or a combination of them can be used at any particular time to impact our subject matter. (Onwuba, 2021). In the past, few methods are used in impacting knowledge into the students' which sometimes make them boring and this is common in social science subjects like, Civic Education, government and others (Onwuba, 2021). This is because, for effective teaching and learning to take place, the skillful teacher needs to use the many different methods and techniques at his command. Even though there is a great diversity in teaching methods and techniques, there is no teaching method that can be regarded as the best for every teaching situation. (Onwuka, 2019).

A carefully designed Teaching methods can work wonders in making learning more effective. The success in the use of the method depends on intelligent analysis of the educational purposes, the students in the class, the curriculum, and content of the moment or the type of subject matter being taught. (Brown, 2020). There are some methods considered more essential in impacting knowledge on the students. Such methods are as follows: inquiry method, Discussion method, discovery method, play method, dramatization method, storytelling method, demonstration method, lecture method and field trip methods for effective teaching and learning. The inquiry-based learning method is described as a range of philosophical, curricular and pedagogical approaches to teaching. It is an instructional method developed during the discovery learning movements of the 1960s. It was developed in response to perceived failure of more traditional forms of instruction, where students are required simply to memorize facts laden instructional materials (Okoli, 2022). Inquiry learning is a form of active learning where progress is assessed by how well students develop experimental and analytical skills rather than how much knowledge they possess. Inquiry based learning can be guided or unguided; Guided inquiry provides specifics-data or facts but wants students to make generalization. It is carefully planned, closely supervised, targeted on-going assessment and intervention by an instructional team of a school (Okoli, 2022). It allows students to discover specific information by themselves before they make generalization. There is no prescribed target result which the students have to achieve; rather students are allowed to discover facts for themselves (Okoli, 2022). In contrary, unguided inquiry allows students to discover specifics by themselves before they make generalizations. Inquiry based learning has been of great influence to education where it is known as inquiry based, especially since the publication of US National Education standard in 2020. Since this publication some educators have advocated a return to more traditional method of teaching and assessment. Others feel inquiry method is important in teaching to student than the lecture method which is highly teachers centered (Okoli, 2022).

Lecture teaching prototype is concerned with the teacher being the controller of the learning environment. Power and responsibilities are held by the teacher and they play the role of instructor (in the form of lectures) and decision makers (in regards to curriculum content and specific outcome) They regard students as having knowledge holes that needs to be filled with information. The traditional teacher view is that the teacher causes learning to occur, (Novac, 2018). According to Awodi, (2022), the lecture method is mainly teacher- centered, with students being constantly passive and contents are constantly taught as absolute knowledge irrespective of the above comments on lecture method of teaching. Lecture method is mostly employed by most teachers because of some of its advantages which include the fact that it can be used to cover a large content area at a time and students are given the same content at the same time (Awodi, 2022). Another major advantage is that it can be used to teach a large class which is a prominent feature in most Nigerian secondary schools. It has been observed that

effective teaching may facilitate learning and make it more meaningful. In line with this Sander (2022) stated that effective teaching helps the learner to learn better, while ineffective teaching would naturally lead to poor learning and consequently poor academic performance.

The poor academic performance as indicated by various empirical studies Ferdinand (2021); Betiku (2018); Omole (2018); Adeniji, (2022); NECO and WAEC Chief Examiner's reports, (2015-2024) respectively) have attracted the concern of all stakeholders including the researchers. Subsequently many factors have been identified and regarded as being responsible for the dwindling trend in the performance of students. These factors include school- teacher-related characteristics, teaching methods social incentives, and a host of others (Olatoye, 2018; Ogunkola, 2018). This suggests that if the aforelisted factors and others can be taken into consideration, students will excel more learning. However, the poor academic performance according to (Omole, 2018) is due to teacher's use of ineffective methods and strategies in teaching which among other factors have contributed to the student's poor academic performance and even interest in secondary schools.

Academic performance is the scholastic standing of a student at a given moment. It has to do with the successful accomplishment of selected educational goal(s). The purpose of testing an academic performance is to help the teacher and the students evaluate and estimate the degree of success attained in learning a given concept (Adeyemi, 2018). It is also useful in testing the retention of information and skill. It is equally appropriate in determining the efficiency of instruction. In view of the issues the study sought to identify the influence teaching methods on students academic performance in secondary schools in Enugu Education Zone.

Statement of the Problem

Despite curriculum reforms and investment in schooling, many secondary schools in the Enugu Education Zone report uneven academic results across public and private institutions and within subject areas. Anecdotal evidence suggests that pedagogical practice not only resources plays a major role in these variations. According to West African Examination Council examination report (WAEC, 2024), there is high rate of poor academic performance of students in in Senior Secondary School Certificate Examination (SSCE) over the years. This could be as a result of the teachers' use of ineffective methods and strategies in general teaching which among other factors have contributed to the student's poor academic performance in at the senior secondary school. The issue of poor academic performance has been necessitated the need for strategies to enhance effective teaching and learning in senior secondary schools in Nigeria. However, there is limited empirical local research comparing the effectiveness of different teaching methods on student performance within the Zone. This knowledge gap hampers targeted influence of inquiry method and lecture method on students' academic performance in Secondary Schools in Enugu Education Zone.

Purpose of the Study

The main purpose of this study is to find out Influence of Teaching methods on students Academic performance in Enugu Education Zone, Enugu state. Specifically, the study will determine the:

1. influence of guided inquiry method on students' academic performance in Enugu Education Zone
2. influence of lecture method on Students' academic performance in Enugu Education Zone.

Research Questions

The following research questions were posed to guide the study:

1. what is the influence of guided inquiry method on students' academic performance in Enugu Education Zone?
2. What is the influence of lecture method on students academic performance in Enugu Education Zone?

Literature Review

Teaching Methods

Teaching methods comprises the principles and methods used for instruction. The choice of Teaching method or methods to be used depends largely on the information or skill that is being taught, and it may also be influenced by the aptitude and enthusiasm of the students (Agbai, 2019). Agbai (2019), the researcher explained further that there is no single method for the teaching that is the best. Method adopted at any time depends on a number of factors. Such factors include; the nature of the topic, the age of the learner and the learning environment among others. There are different teaching strategies (methods) in education. A good teacher should be able to use variety of methods considered suitable for any given instruction; the different methods are not mutually exclusive. The method or strategies that are frequently used for education include; the traditional lecture method (chalk and talk) method, the discovery and inquiry method, demonstration method, laboratory method, field trip method and instructional strategies such as cooperative learning, classroom interaction method, constructivist approaches (Obiekwe, 2018). Obiekwe also categorized the Teaching methods into two approaches; teacher- centered approaches and student centered- approaches. Guisti (2018) and Campbell (2016) stated that teacher centered approaches to instruction are often referred to as the traditional method of teaching, didactic or direct instruction, and that it include all the methods grounded in behaviorism, such teaching methods like the lecture/expository methods, demonstration and recitation.

Lecture Method of Teaching

Gives the instructor the chance to expose students to not readily available material. Allow the instructor to precisely determine the aims, content, organization, pace and direction of a presentation. Some students depend upon the structure provided by highly teacher-centered methods and it facilitates large-class communication. Can be used to arouse interest in a subject. It also compliments and clarifies text material. Lectures can be specifically organized to meet the needs of particular audience and can present large amount of information (Ibe, 2019).

Disadvantages of Lecture Method

Places students in a passive rather than an active role, which hinders learning. Encourages one-way communication; therefore, the teacher must make a conscious effort to become aware of student problems and student understanding of content without verbal feedback. Requires a considerable amount of unguided student time outside of the classroom to enable understanding and long-term retention of content. In contrast, interactive methods (discussion, problem-solving sessions) allow the instructor to influence students when they are actively working with the material. Requires the instructor to have or to learn effective writing and speaking skills (Mandore, 2020). Lectures are not well suited for teaching complex abstract material.

Inquiry Method of Teaching

Inquiry entails practicing of attitudinal skills such as honesty, open mindedness and perseverance when carrying out and technology tasks. Inquiry means more than simply answering questions or getting right answers and emphasizing it. It is an innovative Teaching method which encourages active participation of students in the learning process (O'Bannon, 2020 and Exline, 2019). Inquiry is an approach to learning whereby students find and use a variety of sources of information and idea to increase their understanding of a problem, topic or

issue (Kuhlthau, 2021). Inquiry requires more than simply answering questions or getting right answers, and emphasizes discovery rather than telling (Guisti 2018). The word inquiry according to Campell (2016) loosely means ‘an investigation’ but its meaning in the realm of education is much more complex. It includes questioning, designing, conducting and experiment and communicating the result to others or the society which mirrors scientists. Inquiry also espouses investigation, exploration, search, quest, research pursuit and study (Exline, 2019).

Methods

The research design adopted for this study was a survey design. Nworgu (2018) states that research design is the plan, structure and strategy of investigation, conceived so as to obtain answers to research questions and to control variance. The study covered all the secondary school in Enugu Education Zone. The population of the study includes all the students in the 31 secondary schools in Enugu Education Zone. Population of the study includes 13,462 students. Source of data: Post Primary School Management Board, (PPSMB) 2024/2025, (Statistic and Record Unit), Enugu Zonal Office. A sample size of 388 was determined by the use of formula of Taro Yamen. From the above calculation, the calculated sample size is 388 out of the population of 13,462 Secondary School students in the area. Purposive sampling techniques was use to select 3 secondary schools each from the 3 Local Government Areas that made up Enugu Education Zone. After that, simple random sampling was used to select 132 students from Enugu North, 128 from Enugu East and Isi-Uzo local government Area. The instrument was structured questionnaire titled “ Influence of Teaching methods on students academic performance in secondary school questionnaire (ITMSAPSSQ); which was structured based on the research questions that guided the study. To test the reliability of the instrument, a test-retest method was used. The correlation co-efficient obtained using the Cronbach Alpha method of estimating reliability was 0.75. This indicated that the instrument has a high level of reliability. The data was collected by the researcher. The questionnaire was administered to the respondents personally by the researcher. All the copies (100%) of the questionnaire were distributed and collected on the spot to avoid loss of some of item. Mean statistics were used for data analysis in order to determine the degree of respondent’s agreement/disagreement on each of the scaling statement in the questionnaire, nominal values were assigned to different scaling statements as follows: Strongly agreed = 4, Agreed = 3, Disagreed =2 and Strongly disagreed =1. A cut off was determine by finding the mean of the nominal values assigned to the option in each questionnaire items. Hence any of the respondents therefore that have mean score of 2.50 and above was regarded as agree while any value below 2.50 was regarded as disagree.

Results

Research Question 1: What is the influence of guided inquiry method on students’ academic performance?

Table 1: Mean response of the respondents on the influence of guided inquiry method on secondary school students academic performance in Enugu Education Zone.

s/n	Items	SA	A	D	SD	N	$\sum fx$	X Mean	Remark
1	Guided inquiry is more scientific	150	150	80	8	388	1218	3.10	A
2	it stimulates students’ interest	200	100	18	70	388	1206	3.10	A

3	It is best suit for experiments	180	50	58	100	388	1086	2.79	A
4	It is more of students' based	188	50	50	100	388	1102	2.84	A
Mean								2.95	A

From the computed mean on table 1: it was found that the mean of item (1,2,3 and 4) Were above the cut- off point of 2.5 and therefore agreeing on the influence of guided inquiry method on secondary school students' academic performance. Items (none) was below the cut –off point and therefore not agreeing on the influence of guided inquiry method on students' academic performance in Enugu Education Zone.

Research Question 2: What is the influence of lecture method on students' academic performance in Enugu Education Zone?

Table 2: Mean response on respondents on influence on lecture method on students academic performance

s/n	Items	SA	A	D	SD	N	$\sum fx$	X Mean	Remark
1	Lecture method make students to be passive participants in the learning process	200	100	18	70	388	1206	3.10	A
2	It reduces stress among teachers	180	50	58	100	388	1086	2.79	A
3	It is used skip difficult concepts	188	50	50	100	388	1102	2.84	A
4	It decreases students' interest in learning	200	100	18	70	388	1206	3.10	A
Mean								2.95	A

From the computed mean in table 2: it was found that the mean of item (1,2,3 and 4) Were above the cut- off point of 2.5 and therefore agreeing the influence of lecture method on students' academic performance.

Summary of Findings

From findings above; it was identified that:

1. inquiry method of teaching has positive influence on students' academic performance in Enugu Education Zone
2. the findings showed that of lecture method have negative influence on students' academic performance in Enugu Education Zone.

Discussions

The study aimed to review the influence of teaching methods on the academic performance of secondary school students in Enugu Education Zone, Enugu State. Research question one the study reviewed the influence of inquiry methods on the academic performance of secondary school students in Enugu Education Zone. From the findings the study reviews that the guided inquiry is more scientific. That it stimulates students' interest; it is best suit for experiments and it is more of students' base. This has link with the findings of James (2018) which point that guided inquiry method is suitable for teaching in teaching and learning and improves students academic performance. In research question two, the study sought to find the influence of

lecture method in teaching and learning. From the findings the study reviews that Lecture method did not improve students' interest in learning, it reduces stress among teachers and makes students devastated. This is in line with the work of Hanson, (2015) who maintained that learning becomes more effective and long lasting when learners plan their own question, analyze and discuss their findings and finally construct their problems or questions and independently investigate on how to find their solutions without the teacher's assistance. This has a link with Olumese (2016) who opined that lecture method in highly teacher-based did not improve students' interest in learning.

Conclusion

Based on the findings, it is generally concluded that inquiry methods under investigation have positive influence on students' performance positively, while lecture method that is highly teacher-centered and does not stimulate students' interest and general performance.

Recommendations

Based on the fore-mentioned educational implications of the findings of this study, the following recommendations were made.

1. The ministry of Education or its relevant agencies should organize seminars and workshop for teachers at least once in a term in order to update their knowledge on the practice of inquiry base learning since it has the capacity of improving students' attentiveness and interest.
2. Lecture method of teaching should not be used for students who are under aged and should also be combined with other methods as to improve students' understating and interest.

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