PERCEIVED INFLUENCE OF INNOVATIVE TEACHING METHODS ON STUDENTS' ACADEMIC PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN ANAMBRA EAST LGA OF ANAMBRA STATE.

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Abstract

The study investigated the perceived influence of innovative teaching methods on students' academic performance in Anambra East Local Government Area. Four research questions guided the study. The study adopted a descriptive survey research design. The population of the study consists of 578 SS2 students in the nine public secondary schools in Anambra East Local Government Area. The sample size was 150 secondary school students selected through a simple random sampling technique. The research instrument for this study is a questionnaire titled "Perceived Influence of Innovative Teaching Methods on Students' Academic Performance (PIITMSAP), designed by the researcher." The instruments were validated by three experts, two in Educational Management and Policy and one in the Department of Educational Foundations (Measurement and Evaluation Unit), all in the Faculty of Education, from Nnamdi Azikiwe University, Awka. Cronbach's alpha was used to determine the internal consistency of the instrument. Data were analyzed using mean ratings in answering the research question. The findings of the study showed that project-based learning, collaborative learning, flipped classroom, and personalized learning have a positive influence on students' academic performance in Anambra East Local Government Area. Based on the findings of the study, it was strongly concluded that innovative teaching methods have a positive influence on the academic performance of students in secondary schools in Anambra East Local Government Area. Hence, incorporating project-based learning, collaborative learning, flipped classrooms, and personalized learning into secondary school curricula significantly enhances the academic performance of students in Anambra East Local Government Area. It was recommended among others that teachers should design projects that align with learning objectives, encouraging student autonomy and self-directed learning.

KEYWORDS: Innovative Teaching Methods, Academic Performance, Public Secondary Schools

Introduction

Education is as old as man, and its relevance to any nation cannot be overemphasized. It is both the act of imparting knowledge to others and the act of receiving knowledge from someone else. Education is a process of expediting learning, acquiring knowledge, values, and virtues. Education contributes to the development of better people around the globe. It is more of an enduring method in which people gain information, skills, and ethics.

Education is not complete without teaching. Teaching is considered the act of imparting instructions to the learners in a classroom setting. It is the process of attending to people's needs, experiences, and feelings, and making specific interventions to help them learn (Wilson, 2021). Teaching is therefore the act of being able to deliver curriculum content in such a way that learners would perform behaviours that indicate the attainment of learning outcomes. To teach effectively requires the help of skilled experts who can help students become active participants in discovering knowledge in their teaching and learning environment using innovative teaching methods.

Innovation is the act of constructive thinking, group knowledge, skills, and attitude into new, original, and rational ideas (Nwankwo, 2020). To the researcher, an innovative teaching method can be defined as an approach that involves the use of technology, hands-on activities, and other materials to help stimulates student learning capability. It is an approach to education that breaks away from traditional teaching strategies to engage students in new and more effective ways of learning.

According to Osuala (2021), an innovative teaching method looks deeply into what students really acquire from what was taught in the class. It prioritizes student-centered learning, active engagement, and the integration of technology. These methods aim to foster critical thinking, creativity, collaboration, and problem-solving skills among students. By leveraging technology and real-world applications, innovative teaching methods seek to make learning more interactive, relevant, and engaging for students. The use of innovative teaching methods in schools has the potential not only to improve education but to empower people, strengthen governance, and galvanize the effort to achieve the human development goal (Wilson, 2020). Unfortunately, achieving these goals in secondary schools in Anambra East seems to have been not quite successful because of some unpleasant situation of learning in public secondary schools in Anambra East Local Government Area.

The learning situation in secondary schools in Anambra East is often characterized by inadequate infrastructure, insufficient resources, and poor teaching conditions. Many schools lack basic amenities such as functional classrooms, libraries, and laboratories, making it challenging for students to learn effectively. Additionally, the shortage of qualified teachers and inadequate training opportunities further exacerbate the problem. These issues can lead to poor academic performance, low student motivation, and a lack of opportunities for students to reach their full potential, which makes it necessary for effective use of innovative teaching methods. Supporting this, UN (2021) asserted that Anambra East Local Government Area, is one of the regions where limited access to educational opportunities has hindered the realization of inclusive education and national development.

There are different types of innovative teaching methods; according to Wilson (2021), they include project-based learning (PBL), collaborative learning, flipped classrooms, personalized learning, gamified learning, and experiential learning. However, in the context of this study, only project-based learning (PBL), collaborative learning, flipped classrooms, and personalized learning were explored.

Project-based learning, as discussed by Thomas (2020), involves students working on real-world projects that require critical thinking, problem-solving, and creativity. This approach helps students develop deeper learning outcomes and prepares them for future careers, while collaborative learning plays a different role in the teaching-learning process.

Collaborative learning, as emphasized by Johnson and Johnson (2020), encourages students to work together to achieve common goals. This approach fosters teamwork, communication, and social skills, leading to improved learning outcomes, which can reverse the learning basics for the format of traditional lecture-homework through flipped classrooms.

Flipped classrooms, as described by Bergmann and Sams (2020), involve reversing the traditional lecture-homework format. Students learn basics at home and work on activities and projects in class, promoting active learning and increased engagement. However, it is very important to integrate the use of technology in teaching methods, which makes personalized learning very crucial.

Personalized learning, as opined by Gee (2020), tailors learning experiences to individual students' needs, interests, and abilities. This approach uses technology and data to provide targeted support and improve student outcomes. By incorporating these innovative approaches, teachers can

create engaging, effective, and student-centered learning environments that prepare students for excellent academic performance in school.

Academic performance is the extent to which a learner is profiting from instruction in a given area of learning; that is, performance is reflected by the extent to which skill and knowledge have been imparted to them. Akunne and Anyamene (2021) defined academic performance as the attained level of students' functioning in school tasks, such as shown by school marks. This study takes academic performance as the outcome of students' evaluation, which enables one to ascertain the extent to which the students have achieved their educational objectives in public secondary schools in Anambra East Local Government Area.

Innovative teaching methods could have a profound impact on the academic performance of students in Nigeria. According to Okeke (2020), innovative teaching methods such as collaborative learning, personalized learning, project-based learning, and flipped classrooms can enhance student engagement, motivation, and understanding of complex concepts. These methods deviate from traditional teaching approaches, which often focus on rote memorization and lecturing. Adebayo (2019) notes that innovative teaching methods promote active learning, critical thinking, and problem-solving skills. These skills are essential for academic success and prepare students for the demands of the 21st century. Furthermore, innovative teaching methods can cater to diverse learning styles, abilities, and needs, leading to a more inclusive learning environment (Ogunsola, 2020).

Studies have shown that innovative teaching methods can lead to improved academic performance, increased student satisfaction, and reduced dropout rates (Afolabi, 2018; Okoro, 2019). Students who experienced project-based learning may have significant improvements in their academic performance compared to those who received traditional instruction. In addition, innovative teaching methods can foster a growth mindset, creativity, and innovation among students (Oloruntegbe, 2020). These skills are crucial for Nigeria's economic growth and development, as they can lead to the creation of new ideas, products, and services.

However, the adoption of innovative teaching methods in Nigerian schools faces challenges such as inadequate resources, lack of teacher training, and resistance to change. In this regard, Adeyinka (2022) posited that many schools in Nigeria lack the necessary technology, equipment, and facilities to effectively implement innovative methods such as blended learning, flipped classrooms, and gamification. Another challenge is the lack of teacher training and capacity building. Teachers may not possess the necessary skills and knowledge to effectively design and implement innovative lessons, leading to a mismatch between teaching methods and learning objectives. Furthermore, resistance to change among teachers and students can hinder the adoption of innovative teaching methods. Additionally, innovative teaching methods can be time-consuming and require significant planning and preparation (Ogunsola, 2020). Teachers may struggle to balance the demands of innovative teaching with the pressure to meet curriculum requirements and assessment deadlines. This can lead to teacher burnout and decreased motivation. Moreover, innovative teaching methods may not be suitable for all students, particularly those with special needs or learning difficulties. Finally, the assessment and evaluation of innovative teaching methods can be complex and challenging (Afolabi, 2021). Traditional assessment methods may not be suitable for measuring the learning outcomes of innovative teaching approaches, leading to difficulties in evaluating student performance. Thus, innovative teaching methods have the potential to enhance academic performance, their implementation is not without challenges, and the situation seems pathetic in Anambra East Local Government Area.

In Anambra East Local Government Area, the traditional teaching methods have dominated the educational landscape, leading to a stagnant academic performance among students (Nwankwo, 2023). In the context of Anambra East Local Government Area, the educational landscape may be

characterized by unique challenges such as limited resources, inadequate infrastructure, and a shortage of qualified teachers. Understanding the educational landscape is crucial for developing effective strategies to improve student learning outcomes and address the specific needs of the community. Despite the importance of innovative teaching methods in enhancing student learning outcomes, their adoption and implementation have been limited. This has resulted in a significant gap between the expected and actual academic performance of students in the area.

The persistent underperformance of students in Anambra East Local Government Area has raised concerns among teachers and stakeholders, prompting a quest for innovative solutions. Despite the potential of innovative teaching methods to revolutionize learning outcomes, their impact on academic performance in schools in this local government area remains unexplored. The traditional teaching approaches, which have dominated the educational landscape, seem to have failed to yield desired results, and as such, have left a significant gap between expected and actual academic achievement. The problem is further compounded by the lack of empirical evidence on the influence of innovative teaching methods on academic performance, making it challenging for teachers and policymakers to develop effective strategies to improve student outcomes.

Purpose of the Study

The purpose of this study is to examine the perceived influence of innovative teaching methods on students' academic performance in Anambra East Local Government Area. Specifically, the study seeks to examine the perceived influence of:

1. Project-based learning on students' academic performance in public secondary schools in Anambra East Local Government Area.
2. Collaborative learning on students' academic performance in public secondary schools in Anambra East Local Government Area.
3. Flipped classroom on students' academic performance in public secondary schools in Anambra East Local Government Area
4. Personalized learning on students' academic performance in public secondary schools in Anambra East Local Government Area.

Research Questions

The following research questions would guide the study.

1. What is the influence of project-based learning on students' academic performance in public secondary schools in Anambra East Local Government Area of Anambra State?
2. What is the influence of collaborative learning on students' academic performance in public secondary schools in Anambra East Local Government Area of Anambra State?
3. What is the influence of the flipped classroom on students' academic performance in public secondary schools in Anambra East Local Government Area of Anambra State?
4. What is the influence of personalized learning on students' academic performance in public secondary schools in Anambra East Local Government Area of Anambra State?

Method

The design for this study was a descriptive survey research design. The design was considered appropriate because it enabled the researcher to identify the characteristics of the population objectively through sampling and also determine students' perspectives on the influence of innovative teaching methods on students' academic performance in Anambra East Local Government Area through the use of a questionnaire. The study was carried out in Anambra East LGA of Anambra State. The population for the study comprised 578 SS2 students[2] in the nine public secondary schools

in Anambra East Local Government Area, Anambra State (Post Primary School Service Commission, 2025). The sample size was 150 Senior Secondary students selected through a simple random sampling technique.

The instrument for data collection was a questionnaire titled "Perceived Influence of Innovative Teaching Methods on Students' Academic Performance Questionnaire (PIITMSAPQ)". It is divided into two parts: A and B, grouped into four clusters with five statements in each cluster table. Part A of the questionnaire provides information on demographic data of the respondents, while Part B centered on the research questions posed for the study. It consisted of 20 items structured in the following order of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

The instruments were face validated by three experts who are all lecturers. Two from the Department of Educational Management and Policy, one from Educational Foundations. The reliability of the Instrument was established using the Cronbach Alpha test to test the internal consistency, which yielded a coefficient of 0.93. The reliability test was conducted during a pre-test involving 20 students from Awka South Local Government Area of Anambra State, which is outside of the study area.

Data was collected using the direct delivery method (DDM) with the help of four research assistants who were students and were briefed on the purpose of the study and their roles in ensuring the collection of valid data. Data collected was analyzed using weighted mean scores to answer the research questions. The point 2.50 was taken as the cut off, meaning that any item or cluster that has a mean score equal to or above 2.50 is seen as accepted, while items with a mean score that is less than 2.50 as not accepted.

Results

Research Question 1: What is the project-based learning influence on students' academic performance in Anambra East Local Government Area?

Table 1: Mean rating of respondents on the influence of project-based learning on students' academic performance in public secondary schools in Anambra East LGA of Anambra state.

S/N	STATEMENTS	SA	A	D	SD	WEIGHTED MEAN	DECISION
1	It improves critical thinking and problemsolving skills among students	29	77	26	18	3.77	Agreed
2	It enhances innovation among students.	16	88	14	32	2.59	Agreed
3	It increases student engagement and motivation	23	67	26	34	2.52	Agreed
4	It promotes better retention of material	44	49	32	25	2.75	Agreed
5	It enhances creativity among students	22	79	40	9	2.76	Agreed
	Cluster mean					2.83	Agreed

From the table above, it can be seen that items 1-5 attracted mean scores of 3.77, 2.59, 2.52, 2.75, and 2.76, respectively. These values fall within the "Agreed" category. This implies that project-based learning has a positive influence on students' academic performance in public secondary schools in Anambra East Local Government Area of Anambra state.

Research Question 2: How does collaborative learning influence students' academic performance in Anambra East Local Government Area?

Table 2: Mean rating of respondents on the influence of collaborative learning on students' academic performance

S/N	STATEMENTS	SA	A	D	SD	WEIGHTED MEAN	DECISIONS
6.	It develops teamwork and communication skills for improved academic performance	61	44	25	23	2.95	Agreed
7.	It improves social skills and relationships	44	63	32	11	2.93	Agreed
8.	It increases student academic engagement	47	72	15	16	3.00	Agreed
9.	It promotes better academic outcomes, especially for diverse learners	37	80	21	12	2.95	Agreed
10.	It improved the retention rates of students	22	71	23	54	2.67	Agreed
	Cluster Mean					2.78	Agreed

From the table above, it can be seen that items 6-10 scored mean values of 2.95, 2.93, 3.00, 2.95, and 2.67, respectively. These values fall within the "Agreed" range. This implies that collaborative learning has a positive influence on students' academic performance in the Anambra East Local Government Area.

Research Question 3: How does the flipped classroom influence students' academic performance in Anambra East Local Government Area?

Table 3: Mean rating of respondents on the influence of the flipped classroom on students' academic performance

S/N	STATEMENTS	SA	A	D	SD	WEIGHTED MEAN	DECISION
11.	It personalizes learning experi nces	16	88	14	32	2.59	Agreed
12	It increases student motivation for good grade s	23	67	26	34	2.52	Agreed
13	Improves test scores and acade ıic achieveme ıt	44	49	32	25	2.75	Agreed
14.	It promotes effective use of class time	22	79	40	9	2.76	Agreed
15	Enhances student-teacher feedback interaction and	31	89	13	17	2.89	Agreed
	Cluster Mean					2.77	Agreed

From the table above, it is evident that items 11-15 scored mean values of 2.59, 2.52, 2.75, 2.76, and 2.89, respectively. These scores are also within the "Agreed" category. This implies that the flipped classroom has a positive influence on students' academic performance in Anambra East Local Government Area.

Research Question 4: How does personalized learning influence students' academic performance in Anambra East Local Government Area?

Table 4: Mean rating of respondents on the influence of personalized learning on students' academic performance.

S/N	STATEMENTS	SA	A	D	SD	WEIGHTED MEAN	DECISION
16	Personalized learning makes learning more interesting, – which leads to high grades.		122	8	20	2.68	Agreed
17	It improves retention of material among students	21	86	10	33	2.63	Agreed
18	Increases student academic engagement for better performance	29	77	26	18	3.77	Agreed

19	It and application of knowledge among students	16	88	14	32	2.59		Agreed
20	It promotes better preparation for real-world scenarios.	23	67	26	34	2.52		Agreed
	Cluster Mean					2.77		Agreed

From the Table above, items 16-20 recorded mean values of 2.68, 2.63, 3.77, 2.59, and 2.52, respectively. These values also fall within the "Agreed" category. This revealed that personalized learning has a positive influence on students' academic performance in Anambra East Local Government Area.

Discussions of Findings

Project-based learning (PBL): The findings of the study showed that project-based learning had a high cluster mean of (2.83) and had a positive influence on students' academic performance in Anambra East Local Government Area. Project-based learning (PBL) has been consistently linked to improved critical thinking, problem-solving, and communication skills among students. Studies by Hernandez-Ramos (2017) and Bell (2020) demonstrated significant gains in academic performance, particularly in STEM subjects, when PBL is integrated into the curriculum.

Collaborative learning: The collaborative learning yielded a cluster mean of 2.78. The findings of the study revealed that collaborative learning has a positive influence on students' academic performance in Anambra East Local Government Area. Collaborative learning has also been shown to foster teamwork, mutual respect, and social skills among students (Johnson & Johnson, 2018). These findings agree with the findings of Gillies (2016) and Kyndt (2015), who highlighted the positive impact of collaborative learning on academic performance in language arts and social studies.

Flipped classroom: With a cluster mean of 2.77, which showed that the flipped classroom has positive influence on students' academic performance in Anambra East Local Government Area. Flipped classrooms, where students learn concepts at home and engage in hands-on activities in class, have yielded promising results. Studies by Fulton (2012) and Hamdan (2013) are in tandem with these findings by demonstrating that the flipped classroom enhances students' engagement, motivation, and academic achievement.

Personalized learning: The personalized learning had a cluster mean of 2.77. It revealed that personalized learning has a positive influence on students' academic performance in Anambra East Local Government Area. Personalized learning, which involves hands-on experiences and real-world applications, has been linked to improved knowledge retention and transfer. This is in agreement with Wurdinger (2017) and Wilson (2018), who demonstrated significant gains in academic performance, particularly in vocational and technical subjects.

Conclusion

Based on the findings of the study, it was strongly concluded that innovative teaching methods have a positive influence on the academic performance of students in secondary schools in Anambra East Local Government Area. Hence, incorporating project-based learning, collaborative learning, flipped classrooms, and personalized learning into secondary school curricula significantly enhances the academic performance of students in Anambra East Local Government Area.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Teachers should design projects that align with learning objectives, encouraging student autonomy and self-directed learning.
2. Ministries of Education should optimize collaborative learning by training teachers to facilitate group dynamics, active listening, and conflict resolution.
3. School leaders should provide teachers with professional development opportunities to design engaging, interactive lessons.
4. School administrators should integrate personalized learning by partnering with local industries and organizations, providing students with authentic learning experiences.

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