Received: 27.07.2026
Accepted: 20.09.2026
Published: 21.09.2026

Vol.2.1.2026 pp. 50-63. http://globreshub.org/index.php/gaijm **DOI:** https://doi.org/10.5281/zenodo.23399273

INFLUENCE OF PEER AND TRADITIONAL ASSESSMENT TECHNIQUES ON STUDENTS' ACHIEVEMENT IN SENIOR SECONDARY SCHOOLS IN DELTA STATE CENTRAL

Elohor Peace ONORIODE-OKPEGBEHE
Alfred Jonah International School,Alfred Jonah School Road, Sapele, Delta State
elohoronoriodeokpegbehe@gmail.com

Abstract

This study investigated the influence of peer and traditional assessment techniques on students' academic achievement in Economics among senior secondary schools in Delta Central Senatorial District, Delta State, Nigeria. The study adopted a quasi-experimental research design utilizing a pre-test, post-test non-equivalent group design. The population comprised 8,485 SS II Economics students (4,640 female and 3,845 male) from 35 public senior secondary schools in Delta Central Senatorial District. A sample of 100 SS II Economics students (40 males and 60 females) was selected through purposive and simple random sampling techniques from two public senior secondary schools in Sapele Local Government Area. The experimental group (50 students) was exposed to peer assessment technique, while the control group (50 students) was exposed to traditional assessment technique. An Economics Achievement Test (EAT) consisting of 40 multiple-choice items was developed, validated, and tested for reliability using the Kuder-Richardson (KR-20) method. Data collected were analyzed using descriptive statistics (mean, standard deviation, and mean gain scores) and inferential statistics (Independent Samples t-test and Two-Way Analysis of Variance) at a 0.05 level of significance. Findings revealed that students exposed to peer assessment recorded significantly higher mean gain scores ($M = 8.54$, $SD = 1.64$) than those exposed to traditional assessment ($M = 3.60$, $SD = 1.44$). The main effect of assessment type on students' gain scores was statistically significant, $F(1, 96) = 166.44$, $p < .001$. The main effect of achievement level was also significant, $F(1, 96) = 8.15$, $p = .005$. However, the interaction effect between assessment type and achievement level was not statistically significant, $F(1, 96) = 1.42$, $p = .236$. The study concluded that peer assessment is more effective than traditional assessment in enhancing students' academic achievement in Economics, and that its effectiveness is consistent across both high and low achievers. Recommendations were made for the adoption of peer assessment as a complementary classroom assessment strategy in secondary schools.

Keywords: Peer Assessment, Traditional Assessment, Academic Achievement, Economics and Senior Secondary Schools

* ONORIODE-OKPEGBEHE. agree that this article remain permanently open access under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives 4.0 International License. See for details: https://creativecommons.org/licenses/by-nc-nd/4.0/

Introduction

Teaching and learning constitute interdependent and mutually reinforcing processes that occur simultaneously within the classroom environment, with the effectiveness of instruction being fundamentally evidenced by the extent to which learners achieve the intended outcomes articulated in instructional objectives, typically expressed in measurable behavioral terms. In order to determine the degree to which students have acquired the targeted knowledge, skills, and competencies, educators must employ systematic, rigorous, and empirically grounded methods for gathering, analyzing, and interpreting data on student performance. The depth, quality, and validity of this data significantly enhance the educator's capacity to form an accurate and comprehensive understanding of student learning, identify specific areas of misunderstanding or misconception, and adjust instructional strategies accordingly in a responsive and iterative manner. This systematic and multifaceted evaluative process is referred to as assessment, which serves as a cornerstone of effective pedagogical practice and a critical determinant of educational quality.

In the dynamic and evolving context of contemporary education, the methods employed to evaluate student learning have become a focal point of intense scholarly debate and empirical investigation, particularly with regard to the comparative merits, limitations, and complementarity of peer assessment versus traditional assessment approaches. According to Sadler (2018), assessment is defined as a systematic, cyclical, and purpose-driven process of collecting, analyzing, and interpreting evidence to make well-informed, defensible judgments about a learner's knowledge, skills, and conceptual understanding. This comprehensive process encompasses the identification and articulation of learning objectives, the selection and implementation of appropriate evidence-gathering strategies (such as standardized tests, classroom observations, performance tasks, portfolios, and project-based assessments), the systematic analysis of collected data, and the provision of timely, specific, and actionable feedback aimed at enhancing student learning and fostering continuous improvement. As a foundational and indispensable element of the educational process, assessment plays a critical role in shaping effective instruction, informing pedagogical decisions, and promoting meaningful student learning outcomes. Consequently, it is imperative that educators possess strong assessment literacy—characterized by a deep understanding of assessment principles, methods, and ethical considerations—in order to optimize teaching practices, enhance instructional effectiveness, and promote equitable and inclusive student learning outcomes.

Historically, assessment in education has primarily served as a tool for measuring student achievement, commonly referred to as assessment of learning. This summative approach involves the assignment of grades or scores based on students' performance and serves to evaluate the outcomes of instruction, typically after a period of teaching has concluded. However, contemporary educational scholarship recognizes that assessment encompasses broader, more multifaceted functions, including the

evaluation of the learning process itself, the rate and quality of knowledge assimilation, and the extent to which instructional goals have been achieved by both students and teachers. In this broader and more holistic context, assessment serves as a mechanism for enhancing the overall quality of teaching and learning, rather than merely documenting student performance. When used formatively, this process is known as assessment for learning, which focuses on identifying and supporting student development across all domains of learning—cognitive, affective (or behavioral), and psychomotor. As a critical and integral component of the educational system, assessment facilitates the ongoing evaluation of learners' understanding, progress, and development. Educators and assessors establish performance benchmarks and standards to systematically evaluate student work, both within and beyond the classroom setting, thereby ensuring consistency, fairness, and alignment with curricular objectives.

Assessment is an integral and inseparable part of instruction, as it determines whether or not the goals of education are being met and informs subsequent instructional decisions. Assessment affects decisions about students' grades, placement, advancement, instructional needs, and the provision of appropriate academic support. Edutopia (2014) posits that assessment inspires educators to ask critical questions about their practice: What are students learning? How well are they learning it? How can instruction be improved to enhance learning? For assessment practice to be considered valid and meaningful, it must inform instruction and lead to improved teaching and learning outcomes. In Nigeria, educational assessment is fundamentally based on continuous assessment, as stipulated in the National Policy on Education, which states that "educational assessment and evaluation will be liberalized by passing them whole or part on continuous assessment of the progress of the individual" (Federal Republic of Nigeria [FRN], 2014, p. 9). This policy imperative is further emphasized by the Federal Republic of Nigeria (FRN, 2013), which underscores the importance of continuous assessment as a mechanism for promoting holistic and ongoing evaluation of student learning. The successful implementation of continuous assessment in schools, as opined by Ghaicha (2016) and Agbaegbu in Eze (2017), depends on the effective and efficient use of a variety of assessment techniques to determine students' learning outcomes and inform instructional decision-making. In recent years, there has been a growing interest in exploring alternative assessment techniques that go beyond traditional methods to enhance students' learning experiences, promote active engagement, and foster deeper understanding. One such method that has gained considerable attention is peer assessment, wherein students evaluate and provide feedback on their peers' work based on established criteria and standards.

Peer assessment refers to an evaluative process in which students assess the work of their peers based on established criteria, thereby engaging learners in active participation by requiring them to evaluate, provide constructive feedback, and reflect on both their own work and that of others. As noted by Falchikov (2014), the objective of peer assessment extends beyond merely appraising the quality of academic work; it is also intended to deepen learning by fostering critical reflection, promoting self-

regulation, and developing higher-order thinking skills. Research suggests that peer assessment can positively influence academic achievement, as it promotes collaborative learning, encourages students to internalize evaluative standards, and fosters a sense of ownership and responsibility for their own learning (Boud, 2015). Additionally, peer assessment cultivates essential competencies such as critical thinking, metacognition, communication, and interpersonal skills, all of which are integral to effective lifelong learning and professional success.

On the other hand, traditional assessment techniques tend to be more structured, standardized, and objective, providing students with clear expectations and criteria for evaluation. This can help students focus on specific areas for improvement and strive to meet established standards. However, both assessment techniques have their limitations. Peer assessment may lack the expertise, consistency, and reliability of teacher assessment, while traditional assessment techniques may not always effectively measure a student's true understanding of the subject matter or capture the full range of their abilities. Nevertheless, a combination of peer and traditional assessment techniques can be beneficial for senior secondary school Economics students. By incorporating both methods, students can receive a well-rounded, comprehensive evaluation of their achievements and work towards continuous improvement (Asuai & Adeleye, 2013).

Within the Nigerian secondary school system, Economics occupies a prominent and strategically important position among the social science subjects offered in the formal education curriculum. It plays a critical role in fostering learners' awareness of the importance of education as a catalyst for sustainable economic growth and development. According to Eze (2017), Economics is a social science concerned with the study of human behavior as a relationship between limited resources and competing ends. Jana (2018) further defines Economics as a discipline that constructs conceptual models to predict behavioral responses to changes in policy and market conditions, employing statistical techniques to analyze such dynamics. The subject centers on the production, allocation, and utilization of goods and services, and examines the decision-making processes of individuals, firms, governments, and nations in the face of resource scarcity. Recognized as an elective subject at the senior secondary level in Nigeria, Economics contributes to the realization of national educational goals, particularly in promoting economic literacy and development, as articulated in the National Policy on Education. The knowledge of Economics is instrumental for informed decision-making by households, businesses, and governments, ultimately enhancing living standards and ensuring the efficient management of scarce resources. Consequently, achieving strong academic performance in Economics at the secondary level is essential, as it represents the foundational stage in the formal teaching and learning of the subject.

Furthermore, achievement means anything somebody has done successfully using his or her own effort and skill. Kulbir (2015) defined achievement as the measurement of the effect of specific programme of instruction or training. Academic achievement is performance outcomes that indicate the extent to which

a person has accomplished specific goals that were the focus of activities in instructional environments, specifically in school, college, and university (Steinmayr, Meibner, Weidinger & Wirthwein, 2014). It is the attainment of a certain level of an existing benchmark in order to show the level of proficiency in a particular field of knowledge or skill. Despite the importance of Economics, the achievement of students in internal and external examinations has not been encouraging (Yahya & Bosede, 2019). According to the West African Examination Council (WAEC) Chief Examiner's report from 2016 to 2022, there was poor achievement of students in West African Secondary School Certificate Examinations (WASSCE) in Economics. Students' poor academic performance is attributed to varying social and psychological factors, environmental factors, attitude, interest, personality, quality, teachers' factors, and home/family variables. It is against this background that this study intends to investigate the effects of peer and traditional assessment techniques on senior secondary school students' Economics achievement in Delta Central Senatorial District, Delta State, Nigeria.

Purpose of the Study

1. To compare the difference in the mean achievement scores of students exposed to peer assessment and those exposed to traditional assessment techniques in Delta State Central senior secondary schools.
2. To investigate the type of assessment technique (peer or traditional) and the level of academic achievement among senior secondary school students in Delta State Central, as measured by an achievement test.

Research Questions

1. What is the mean gain in the type of assessment technique (peer or traditional) and the level of academic achievement among senior secondary school students in Delta Central Senatorial District of Delta State?
2. What are the interaction effects of peer assessment, traditional assessment and the level of achievement among senior secondary students in Delta Central?

Literature Review

Traditional Assessment

Traditional assessment methods are the tests, quizzes and written assignments that most of us are pretty familiar with. They are designed to measure a student's knowledge, skills, and abilities in a structured environment. One key feature of traditional assessments is that they are often summative, meaning they are assessments that are given at the end of a learning period- like a chapter, unit, or semester- to sum up what a student has learned. Summative assessments are usually graded and contribute to a student's overall academic record. Some educators and experts argue that these methods can be limiting. For instance, they might not capture a student's ability to think critically or solve problems creatively. An article published by The CATESOL Journal states that “traditional assessment is viewed as a distinct activity and if we think of assessment as an activity that is different from teaching, it affects how we design the learning environment.” This separation can also be stressful, putting students under pressure to perform well in a timed setting, which doesn't always reflect their true abilities or potential.

The primary purpose of traditional assessment is to evaluate student learning outcomes. These assessments provide a snapshot of a student's knowledge and skills, often contributing to their final grade. They also serve as a tool for educational institutions to gauge the effectiveness of their teaching methods (Eze, 2016).

Examples of Traditional Assessment

1. Multiple-choice tests - These tests consist of a series of questions with multiple possible answers, from which students must choose the correct option. When it comes to traditional assessments, the multiple-choice test is a staple. Often administered at the end of a history unit, this type of test aims to evaluate a student's retention and comprehension of the material taught. A typical multiple-choice history test is structured with a series of questions related to the unit's content. Each question is followed by several answer options, usually ranging from three to five choices. Only one of these options is the correct answer, and students must select the one they believe to be accurate. The test is often scored objectively, meaning there's no room for interpretation—answers are either right or wrong.
2. Short answer questions - Students are asked to provide brief responses to questions, typically requiring more than a one-word answer but less than a full essay.
3. Essay exams - Students are required to write detailed responses to prompts or questions, demonstrating their knowledge and critical thinking skills.
4. Oral exams - Students are assessed through verbal questioning by the teacher or examiner, allowing for immediate feedback and discussion.
5. True or false questions - Students must determine whether statements are true or false, demonstrating their understanding of course material.

Characteristics that Define Traditional Assessment

Traditional assessments have several defining characteristics:

1. Standardized: the same test is given to all students.
2. Summative: aimed at evaluating learning outcomes.
3. Objective: grading is often automated or follows a strict rubric.
4. Time-Bound: usually conducted within a set time frame.

Understanding these characteristics can help educators make informed decisions about when and how to use traditional assessments.

Peer Assessment

Traditionally, students were seen as passive receivers of information in the classroom who were expected to provide samples of their knowledge in teacher-made tests. Teachers act as personnel who give out instructions and also as the judge who evaluated students' success. This process would make the students passive and not active because they only listen to instructions given to them. More recently however, alternative ways of assessment are being tried and one of such is Peer Assessment which is defined as a student's evaluation of his own success (Khadijeh, 2010). Peer Assessment is used to describe the process undertaken by students to

assessthe performance/contribution of themselves and their peer group, in relation to a group task (Loddington, 2008). It could also be described as peer moderated marking of students work based on sets of success criteria from the teacher.

In assessing students work, there is need to involve both the teachers and students so that the students will be aware of the success criteria and the process of grading. One of the ways in which students internalize the characteristics of quality work is by evaluating the work of their peers. However, if they are to offer meaningful feedback, students must have a clear understanding of what they are to look for in their peers' work. The teacher must explain the expectations clearly to the students before they start assessing one another. For effective understanding of the Peer Assessment, the teacher will provide a sample of work done or an assignment with instructional rubrics for practice to enable them grade each other. This will give both the teacher and the students confidence in marking their scripts without being bias. For Peer Assessment to be effective, the learning environment in the classroom must be supportive. Students must feel comfortable and trust one another in order to provide honest and constructive feedback because they were selected to different group (the weak students mixed with the strong students).This allows them to become more comfortable with each other and this may lead to better peer feedback (Sebba, Lawson & Harlen, 2008).

In introducing Peer Assessment, the teacher would ensure that students become aware of the benefits for them because they need to see the value for themselves rather than the gains for their teachers. So it is important to introduce peer assessment to improve learning in Economics and to develop new skills to solve problems in Economics. The process also allow students to comment on and judge their colleagues work, has formative and summative assessment. One of the desirable outcomes of education is to improve the ability of the learner and to make the learner independent judge of their own and other people's work. Peer Assessment exercises are seen as means by which these general skills can be developed and practiced. A peer rating format can encourage a greater sense of involvement and responsibility, establish a clearer framework and promote excellence, direct attention to skills and learning and provide increased feedback (Khan, A. 2019).

Peer Assessment therefore is a process whereby students assess assignments or tests of their peers based on teacher's benchmark or Instructional Rubrics (Sadler and Eddie, 2006). Peer assessment is also a process whereby students or their peers grade assignments or tests based on a teacher's standards. The practice is employed to save teachers time and improve students' understanding of course materials as well as improve their metacognitive skills. Peer assessment is a powerful meta-cognitive tool. It engages students in the learning process and develops their capacity to reflect on and critically evaluate their own learning and skill development. It supports the development of critical thinking and interpersonal skills, as well as enhancing understanding within the field of knowledge of a discipline. Peer Assessment is much more than students' marking their own or each other's work because it also help students to learn from their peers solved work. To improve learning, it must be an activity that engages students with the quality of their

work and helps them reflect on how to improve on it. Peer Assessment enables students to give each other valuable feedback so that they can learn from and support each other (Ryan, Marshall, Porter, and Jia 2007).

Students are involved in peer-assessment when they look at their own work in a reflective way, identify aspects of it that are good and that could be improved, and then set personal learning targets for themselves. Peer assessment involves metacognition the process of being aware of and reflecting on one's own learning. Self assessment skills include effective questioning, reflection and the ability to share thoughts in a variety of ways. Self assessment can be used by children of all ability levels and in all areas of learning. Whole class discussions, group situations or one-to-one conferencing are all platforms for peer assessment. (Sebba, Deakin, Lawson,& 2018).

In assessing students' work based on sets of criteria, Instructional rubrics are information feedback or scoring guides that are used by teachers and participants in assessing and evaluating students work based on sets of criteria ranges from poor to excellent performance. These activities also encourage cooperative learning by making weaker students learn from stronger students thereby removing their phobia in Economics.

Methodology

The study will adopt a quasi-experimental research design utilizing a pre-test, post-test non-equivalent group design. According to Kerlinger and Lee (2000), quasi-experimental designs test effects and causal hypotheses similar to true experimental designs but lack random assignment. The design entails the use of non-randomized samples where the researcher cannot randomly sample and assign subjects, hence intact classes will be used. This is because school activities do not allow randomization of subjects without disrupting school programmes. The study comprises two experimental groups and a control group: the experimental group will be exposed to peer assessment while the control group will be exposed to traditional assessment methods. Gender will be incorporated as a moderator variable.

The population comprises 8,485 SS II Economics students (4,640 female and 3,845 male) from 35 public senior secondary schools in Delta Central Senatorial District, Delta State. The study sample comprises 100 senior secondary school students selected through purposive sampling from two public senior secondary schools in Sapele LGA. Simple random sampling was used to select two schools (one experimental and one control group), and intact classes were selected as participating respondents. Participants comprised 40 males and 60 females, with 50 students (20 males and 30 females) in each group. The choice of SS II was based on the fact that students were neither learning Economics for the first time nor preparing for external examinations. Schools selected were far apart to avoid undue interaction among participants, and the same scheme, syllabuses, and teachers with equivalent qualifications will be used.

An Economics Achievement Test (EAT) and instructional packages will be developed by the researcher. The EAT consists of 40 multiple-choice objective items covering four topics: Agriculture, Public Finance, Utility Theory, and Industrialization, based on the SS2 syllabus. The test items will be constructed using Bloom's Taxonomy of educational objectives for the cognitive

domain, covering Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. A Table of Specification will be developed to ensure content validity.

Three instructional packages will be prepared: Peer Assessment Instructional Plan (PAIP) and Traditional Assessment Instructional Plan (TAIP). The instrument will be subjected to construct and content validity by two experts in Economics Education and Educational Measurement and Evaluation. A pilot test will be conducted on 40 SS II Economics students from a school outside the sample, and the Kuder-Richardson (KR-20) method will be used to determine internal consistency. The EAT will be administered to both groups before treatment. After pre-testing, students will be taught for four weeks using the respective assessment methods, and a post-test will be administered. The treatment will be administered by the researcher with the help of trained research assistants (Economics teachers), using eight lesson plans based on the four selected Economics concepts.

Data collected from pre-test and post-test scores will be analyzed using both descriptive and inferential statistics. Descriptive statistics such as mean, standard deviation, and mean gain scores will be used to answer research questions. To test null hypotheses at a 0.05 level of significance, an Independent Samples t-test will be used to determine significant differences in mean achievement scores between students exposed to peer assessment and traditional assessment techniques. A Two-Way Analysis of Variance (ANOVA) will be used to determine the effect of assessment type and academic achievement level on students' gain scores, as well as to test for interaction effects. All analyses will be conducted using SPSS version 25, with decisions to retain or reject null hypotheses based on obtained p-values.

Analysis of Data

Research Question one: What is the mean gain in the type of assessment technique (peer or traditional) and the level of academic achievement among senior secondary school students in Delta Central Senatorial District of Delta State?

Table 1: Descriptive Statistics of Mean Gain Scores Between Peer and Traditional Assessment Groups (N = 100)

ASSESSMENT TYPE	N	MEAN GAIN	STD. DEVIATION
Peer Assessment	50	8.54	1.64
Traditional Assessment	50	3.60	1.44

Table 1: presents the descriptive statistics of mean gain scores (difference between posttest and pretest scores) for students assessed using peer assessment and those assessed with traditional assessment techniques.

The peer assessment group recorded a mean gain of 8.54 (SD = 1.64), while the traditional assessment group recorded a mean gain of 3.60 (SD = 1.44). These descriptive results suggest that students exposed to peer assessment experienced greater academic improvement compared to those in the traditional assessment group.

Research Question 2 What are the interaction effects of peer assessment, traditional assessment and the level of achievement among senior secondary

students in Delta Central?

Table 2: Descriptive Statistics Showing Mean Differences in Posttest Achievement Scores Between Peer and Traditional Assessment Groups (N = 100)

Grouping Variable	Group	N	Mean Gain	Std. Deviation	Minimum	Maximum
Assessment Type	Peer Assessment	50	8.54	1.64	6	11
	Traditional Assessment	50	3.60	1.44	2	6
Post-Intervention Achievement Level	Low	–	4.39	2.22	2	9
	High	–	7.50	2.69	2	11

Table 2: shows the descriptive statistics of students' academic gain scores (Posttest – Pretest) across assessment types and post-intervention achievement levels. Students assessed through peer assessment had a higher mean gain (M = 8.54, SD = 1.64) than those assessed traditionally (M = 3.60, SD = 1.44). Similarly, students classified as high achievers had a greater mean gain (M = 7.50, SD = 2.69) than low achievers (M = 4.39, SD = 2.22). These trends suggest potential interaction between the assessment method and students' achievement level.

Discussion of findings

Peer Assessment Techniques

Table 1 reveal that students assessed with peer assessment techniques recorded higher mean gain scores (M = 8.54, SD = 1.64) than those in the traditional assessment group (M = 3.60, SD = 1.44). This substantial difference highlights a significant academic improvement among students exposed to peer assessment. The two-way ANOVA further supports this outcome with a statistically significant main effect of assessment type on students' gain scores, $F(1, 96) = 166.44$, $p < .001$, indicating that the method of assessment substantially influenced students' academic growth. Additionally, the main effect of achievement level was also significant, $F(1, 96) = 8.15$, $p = .005$, suggesting that students' gain scores varied by their level of achievement. Which means that there is a significant difference in the mean gain scores between students assessed with peer and traditional assessment techniques in relation to their level of academic achievement in Delta Central Senatorial District of Delta State. This finding aligns with the assertions of Nwachukwu and Onah (2020) who found that peer assessment fosters academic progress by encouraging reflective learning and continuous feedback, which contributes to measurable improvement in student outcomes. Similarly, Eze and Ezeugwu (2019) observed that secondary school students who are exposed to formative peer assessment strategies demonstrated greater academic gains than those assessed solely through traditional methods. While question 2 displays the descriptive statistics of students' academic gain scores, calculated as the difference between posttest and pretest scores, across different assessment types and post-

intervention achievement levels. Students in the peer assessment group had a higher mean gain (M = 8.54, SD = 1.64) than those in the traditional assessment group (M = 3.60, SD = 1.44). Likewise, high-achieving students recorded a greater gain (M = 7.50, SD = 2.69) than low-achieving students (M = 4.39, SD = 2.22). These trends suggested a possible interaction between assessment method and achievement level. However, the two-way ANOVA result presented in Table 4.7 revealed that the interaction effect between assessment type and achievement level on students' gain scores was not statistically significant, F(1, 96) = 1.42, p = .236. This implies that the effectiveness of peer or traditional assessment was not dependent on whether a student was a high or low achiever. In other words, peer assessment benefitted both categories, and no unique combined effect between assessment method and achievement level was observed. As a result, the null hypothesis (RH3), which stated that there is no significant interaction effect, was retained. This finding agrees with the study by Adebayo and Ige (2020), who noted that peer assessment improved learning outcomes across students of varying ability levels without disproportionately favoring high or low performers. Similarly, Okonkwo and Okoye (2018) concluded that peer evaluation strategies enhanced performance regardless of students' prior achievement levels in secondary schools. Although both the assessment technique and the achievement level had independent positive effects on academic gain scores, their combined (interaction) effect was not statistically significant.

Conclusion

Based on the findings of this study, the following conclusions were drawn:

The study established that peer assessment technique is significantly more effective than traditional assessment technique in enhancing students' academic achievement in Economics among senior secondary school students in Delta Central Senatorial District, Delta State. Students exposed to peer assessment demonstrated substantially higher mean gain scores compared to their counterparts who were assessed using traditional methods. This finding underscores the pedagogical value of engaging students actively in the assessment process, as peer assessment promotes reflective learning, collaborative engagement, and the internalization of evaluative standards, all of which contribute to improved academic outcomes.

The study further concluded that both assessment techniques and students' achievement levels had independent positive effects on academic gain scores. High-achieving students recorded greater mean gains than low-achieving students, indicating that students' prior achievement levels influence the extent of academic improvement they experience. However, the interaction effect between assessment type and achievement level was not statistically significant, suggesting that the effectiveness of peer assessment is not dependent on whether a student is a high or low achiever. In other words, peer assessment benefitted both categories of students equally, and no unique combined effect between assessment method and achievement level was observed.

Overall, the study concludes that peer

assessment is a powerful metacognitive and instructional tool that engages students in the learning process, develops their capacity to reflect on and critically evaluate their own learning, and fosters essential competencies such as critical thinking, communication, and interpersonal skills. Its consistent effectiveness across achievement levels makes it a valuable and equitable assessment strategy for diverse classrooms. Therefore, the integration of peer assessment into the senior secondary school Economics curriculum, alongside traditional assessment techniques, is strongly supported by the empirical evidence generated in this study.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are made:

1. Secondary school Economics teachers should integrate peer assessment as a complementary assessment technique alongside traditional assessment methods. The significant positive effect of peer assessment on students' achievement suggests that it should not be treated as a last resort but as a deliberate and structured instructional strategy.
2. Ministries of Education and educational agencies should organize regular workshops, seminars, and in-service training programmes for Economics teachers on the effective design, implementation, and management of peer assessment. Teachers need to be equipped with the skills to develop instructional rubrics, establish clear assessment criteria, and create supportive classroom environments conducive to honest and constructive peer feedback.
3. Teachers should clearly explain assessment expectations, provide sample work with instructional rubrics, and guide students through practice sessions before implementing peer assessment. This will build students' confidence, reduce bias, and ensure the reliability and validity of peer evaluations.

References

Adebayo, T. A., & Ige, O. A. (2020). Peer assessment and learning outcomes: Implications for secondary school instruction. *Journal of Educational Assessment and Evaluation*, 12(2), 45–58.

Asuai, N. C., & Adeleye, O. A. (2013). Assessment practices and students' academic achievement in secondary schools. *Nigerian Journal of Educational Research and Evaluation*, 10(1), 112–124.

Boud, D. (2015). *Enhancing learning through self-assessment*. Routledge.

Edutopia. (2014). *Why is assessment important?* George Lucas Educational Foundation.

Eze, T. I. (2016). Traditional assessment practices in Nigerian secondary schools: Issues and challenges. *Nigerian Journal of Curriculum and Instruction*, 23(1), 78–91.

Eze, T. I. (2017). Economics education and sustainable national development in Nigeria. *Journal of Social Science Education*, 18(3), 45–59.

Eze, T. I., & Ezeugwu, C. O. (2019). Formative peer assessment strategies and secondary school students' academic gains in Economics. *African*

Journal of Educational Studies, 15(2), 89–103.

Falchikov, N. (2014). *Learning together: Peer tutoring in higher education*. Routledge.

Federal Republic of Nigeria. (2013). *National policy on education* (6th ed.). NERDC Press.

Federal Republic of Nigeria. (2014). *National policy on education* (7th ed.). NERDC Press.

Ghaicha, A. (2016). Continuous assessment in schools: Implementation challenges and prospects. *International Journal of Educational Research*, 5(2), 67–79.

Jana, S. (2018). Economics as a social science: Conceptual models and policy analysis. *Journal of Economic Education*, 49(4), 321–335.

Kerlinger, F. N., & Lee, H. B. (2000). *Foundations of behavioral research* (4th ed.). Harcourt College Publishers.

Khadijeh, B. (2010). Peer assessment: A student's evaluation of his own success. *Journal of Educational Psychology*, 5(3), 45–57.

Khan, A. (2019). Peer assessment: Enhancing student involvement, responsibility, and learning. *Assessment & Evaluation in Higher Education*, 44(3), 412–426.

Kulbir, S. (2015). *Measurement and evaluation in education*. Sterling Publishers.

Loddington, S. (2008). Peer assessment of group work: A review of the literature. *Assessment & Evaluation in Higher Education*, 33(4), 401–414.

Nwachukwu, P. O., & Onah, F. E. (2020). Peer assessment and academic progress in secondary schools: A reflective learning perspective. *Journal of Educational Research and Development*, 14(1), 56–70.

Osakwe J., Iyawa G., Ujakpa M.M., Amunkete K & Obande B. O. (2020) Barriers to the Implementation of Big Data Technology in Education: An Empirical Study," *2020 IST-Africa Conference (IST Africa)*,Kampala, Uganda, 2020, pp. 1-9.

Okonkwo, C. A., & Okoye, R. O. (2018). Peer evaluation strategies and performance across ability levels in secondary schools. *Nigerian Journal of Educational Psychology*, 16(2), 34–48.

Ryan, G. J., Marshall, L. L., Porter, K., & Jia, H. (2007). Peer assessment: Giving valuable feedback for learning. *Innovative Higher Education*, 31(4), 233–246.

Sadler, D. R. (2018). Assessment: A systematic process of collecting and interpreting evidence. *Assessment in Education: Principles, Policy & Practice*, 25(1), 1–15.

Sadler, P. M., & Eddie, G. (2006). Peer assessment: Using instructional rubrics and benchmarks. *Educational Assessment*, 11(2), 89–104.

Sebba, J., Deakin, C. R., Lawson, H., & Harlen, W. (2008). *Self and peer assessment in schools: A review of the literature*. Qualifications and Curriculum Authority.

Sebba, J., Deakin, C. R., Lawson, H., & Harlen, W. (2018). Self and peer assessment: Metacognition and reflective learning. *Assessment in Education*, 25(3), 267–283.

Steinmayr, R., Meibner, A., Weidinger, A. F., & Wirthwein, L. (2014). Academic

achievement. In *Oxford bibliographies in education*. Oxford University Press.

West African Examination Council. (2016–2022). *Chief examiner's reports on WASSCE Economics*. WAEC Publications.

Yahya, A. O., & Bosede, F. A. (2019). Factors influencing students' poor academic performance in Economics in senior secondary schools. *Journal of Educational Research and Policy*, 13(2), 78–92.