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EFFECTS OF PORTFOLIO ASSESSMENT TECHNIQUE ON SENIOR SECONDARY SCHOOL STUDENTS' ATTITUDE TOWARDS ECONOMICS IN PANKSHIN, PLATEAU STATE, NIGERIA

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ABSTRACT

The study investigated the effect of portfolio assessment technique on students' attitude towards Economics in Pankshin, Plateau State, Nigeria. The population of the study consisted of all the 544 Senior Secondary Two (SSII) students offering Economics in the 16 public and private secondary schools in Pankshin, Plateau State. The used of public and private schools in Pankshin determine if the students' will differ in their attitude to and achievement in Economics. The sample of the study consisted of 160 students in four senior secondary schools made up of two public and two private schools out of the 16 senior secondary schools in Pankshin. The study adopted the multi-stage sampling, where more than one sampling technique was employed for the study. The instrument used for data collection in the study was title Students' Attitude to Economic Questionnaire (SAEQ). The descriptive statistics of frequency distribution tables, simple, graphs, means and standard deviation were used for answering the research questions, while the Analysis of Covariance (ANCOVA) was used for testing the hypotheses formulated for the study at 0.05 level of significance. The choice of ANCOVA test statistic was used to help control for the effects of pre-test on the posttest scores collected from the same groups. Findings showed that students exposed to portfolio assessment demonstrated a significant improvement in attitude toward Economics compared to those in the control group, whose attitudes remained largely unchanged. The study further revealed no significant difference in the effectiveness of the technique based on gender or school type, indicating that portfolio assessment benefits all categories of learners. The results suggest that portfolio assessment promotes increased engagement, reflective learning and ownership of academic progress, thereby fostering more positive perceptions of Economics. The study concludes that portfolio assessment is an effective strategy for enhancing students' attitude toward Economics and recommends its integration into secondary school instructional and evaluation practices.

Keywords: Portfolio Assessment, Students' Attitude, Economics Education,

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Introduction

Economics is a school subject offered at the secondary education level that has streams of benefits for individuals and society. It is a school subject that equips and trains students to understand the world around them and to meaningfully contribute to their personal development and growth, as well as their community and nation, using the limited resources available. Economics is a subject that enables individuals to understand their economic environment better. Economics equips individuals with knowledge of human wants, allocation of scarce resources, production, distribution and consumption, among others. It is the study of the economic activities of people and how they try to live within their limited resources to satisfy their unlimited wants (Ezeebe & Eneogu, 2018). Economics is an important social science subject because it is relevant in everyday life. The objectives of studying Economics in the secondary school is to equip students with the basic principles of Economics necessary for useful living and for higher education and to prepare and encourage students to be prudent and effective in the management of scarce resources as well as to instill in students respect for the dignity of labour and the appreciation of economic, cultural and social values of the society. Economics as a school subject prepares students to acquire knowledge for the solutions of practical economic problems in society and also allows students to build successful financial future. Thus, the teaching of Economics is vital to the growth and development of a nation's economy. The need for introducing Economics as a subject in the secondary school curriculum resulted from an increase in economic problems in society. The Nigeria secondary school Economics curriculum is structured into microeconomics and macroeconomics.

Despite the relevance of economics to economic growth and development, there have been consistent records of students' poor and fluctuating achievement in Economics in the public examinations: WAEC, NECO and NABTEB. The poor and inconsistency of students' achievement in the subject can be attributed student-related factors, teacher-related and school-related factors such as the students/teachers' attitudes, teachers' qualifications and competency, instructional strategies as well as the assessment technique adopted by teachers in teaching Economics. On the researcher's visit to the senior secondary schools in Pankshin to collect baseline data, it was discovered that most economic teachers use the discussion, lecture and inquiry methods, among others. The use of traditional methods for teaching and assessing students, particularly in subjects like Economics, often lead to rote memorization and isolated testing, which may not fully capture students' mastery of complex concepts or their ability to apply knowledge in real-life contexts.

In addition to methods of instruction and assessment, one other factor that affects students' attitude to Economics. Attitude is the opinion, mood, thinking, feeling and behaviour and the disposition of people towards objects, situations, events and people. Attitude affects every aspect of a person's life, including education (Adesoji, 2018). A negative attitude may limit achievement, motivation and inhibit learning. Thus, students' attitude towards learning a particular subject can determine their ability and willingness to learn, level of goal setting, problem-solving abilities, their belief towards learning and their motivation. Students' attitude cannot be solved simultaneously, but gradually and systematically, by starting from the classroom to ascertain what goes on therein, with focus on the teacher mode of assessment technique. There are several factor besetting students' attitude towards Economics in Nigerian secondary schools such as lack of knowledge of the curriculum on the part of teachers affect students' attitude towards Economics, which are well documented in literature. Okorie (2018) posited that the effects of attitude, which

very often is given as a contributing factor to students' underachievement in Economics has been emphasised.

The declining situation therefore calls for a closer look with a view to determining the real nature of students' attitude towards the economics. The development of students' positive attitudes regarding economics as a school subject is one of the major responsibilities of every economics teacher. Unfortunately, research has revealed that much of what goes on in the classroom is not particularly attractive to students across all ages. Attitude towards economics denotes interests or feelings toward studying economics. It is the students' disposition towards like or 'dislike' economics while attitude means scientific approach assumed by an individual for solving problems, assessing ideas and making decisions. Students' beliefs and attitudes have the potential to either facilitates or inhibit learning.

Portfolio assessment is the procedure used to plan, collect, analyze and assess multiple sources of data kept in the portfolio as best pieces of students' work. The process includes student participation in the goal setting, developing criteria, selection of work and engaging in self-assessment of their best pieces of work. Portfolio assessment allows students and teacher to collaborate in assessing and evaluating students' learning from evidence collected and to use the information to make plans and set goals for further learning, which will be useful for meaningful decision making about students. Portfolio assessment technique helps students to learn real-world problems and proffer possible solutions by evaluating not only the product but the processes involved in arriving at the outcome. Portfolio assessment technique guides the learner and presents suitable possibilities for realistic assessment. Moria, Refnaldix and Zaim (2018) also found that students who were assessed using portfolio improved in their final examinations compared to those who were assessed using traditional means of evaluation.

The integration of portfolio assessment technique into the teaching and learning of Economics will enhances students' engagement and critical thinking and also provides a more authentic and comprehensive measure of academic progress. By shifting the focus from rote learning to real-life application and continuous reflection, as well as engaging and involving students in the designing and assessment of learning outcome, portfolio assessment technique is a powerful tool for developing well-rounded, economically literate individuals prepared for better achievement in Economics.

Statement of the Problem

Economics remains one of the core subjects in the secondary school curriculum in Nigeria because of its relevance to national development, financial literacy, and decision-making skills. However, in many secondary schools within Pankshin Local Government Area of Plateau State, students continue to exhibit negative attitudes toward learning Economics. These attitudes are reflected in poor classroom participation, low motivation, superficial understanding of concepts, and persistent underachievement in both school-based and external examinations. Stakeholders have continued to question the effectiveness of the traditional assessment practices dominated by tests, quizzes, and examinations which often emphasize rote memorization rather than meaningful engagement and self-reflection.

Despite growing advocacy for innovative assessment methods, portfolio assessment is still rarely used in many schools in Pankshin. Teachers often perceive it as time-consuming or lack adequate training to implement it effectively. As a result, students are denied opportunities to reflect on their learning progress, demonstrate creativity, develop critical thinking skills, and take ownership of their learning. Where portfolios are used, they are sometimes poorly implemented, reducing their potential to positively influence students' attitudes toward Economics.

Many factors contribute to the dwindling state of students' attitude in Economics, which include: student-related factors, school-related and teacher-related factors like attitude, qualifications, competency, instructional strategies as well as the assessment techniques adopted by teachers in teaching and assessing students in the subject. Other factors include poor coverage of the curriculum, unqualified teachers, use of wrong teaching and assessment techniques especially, poor quality teacher-made tests. The persistent poor attitude of students in Economics will deprive the students of reading Economics and Economics related courses, more economically rewarding activities and will further reduce manpower strength in the country's economy.

Several efforts have been made to help improve students' attitude in Economics, such as organizing extra-mural lessons, improvisation of instructional materials, engagement of support staff by Parent Teachers Association (PTA) to assist existing Economics teachers, home lesson teachers, employment of qualified Economics teachers, provision of adequate instructional materials and text books and provision of Information Communication Technology (ICT) facilities among others. Also, various studies have been conducted aimed to improve students' achievement in Economics, but there is still evidence of poor attitude toward Economics. Hence, the question the present study will answer is: what is the effects of portfolio assessment technique on students' attitude in Economics in Pankshin, Plateau State. The present study set to examine the effect of portfolio assessment technique on students' attitude in Economics considering school type and gender. It sets to find out if portfolio assessment technique will help improve students' attitude in Economics, in Pankshin Plateau State.

Aim and Objectives of the Study

The aim of the study was to determine the effects of portfolio assessment technique on students' attitude towards Economics in Pankshin, Plateau State, Nigeria. Specifically, the objectives of the study were to:

1. ascertain the attitude towards Economics of the SS II students in the experimental and control groups.
2. determine whether any difference exists in the attitude to Economics of the male and female SS II students in the experimental group after treatment.
3. find out whether any difference exists in the attitude to Economics of the public and private SS II students in the experimental group after treatment.

Research Questions

The following questions were raised to guide the study:

1. What are the pre-test and post-test attitude to Economics direction of the SS II students in the experimental and control groups?
2. What is the post-test attitude to Economics direction of the SS II male and female students in the experimental groups?
3. What is the post-test attitude to Economics direction of the SS II experimental group students in public and private schools?

Hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant difference between the pre-test and post-test attitude to Economics mean scores of the SS II students in the experimental and control groups.
2. There is no significant difference between the post-test attitude to Economics mean scores of the SS II male and female students in the experimental group.
3. There is no significant difference between the post-test attitude to Economics mean scores of the public and private SS II students in the experimental group.

Method and Procedures

The study adopted the quasi-experimental research design specifically, the pretest-posttest non-equivalent control group design that intact classes was selected and randomly assigned to the experimental and control groups. Thus, intact classes were used and all the students found in each class were used without randomization to avoid disruption of the normal class arrangements.

The population of the study consisted of all the 544 Senior Secondary Two (SSII) students offering Economics in the 16 public and private secondary schools in Pankshin, Plateau State. The sample of the study consisted of 160 students in four senior secondary schools made up of two public and two private schools out of the 16 senior secondary schools in Pankshin. Two schools were assigned each to the experimental and control groups. One public and one private secondary school were assigned to experimental group and one public and one private school were assigned to control group.

The study adopted the multi-stage sampling, where more than one sampling technique was employed for the study. The purposive sampling technique was adopted to select all the senior secondary schools that offer Economics. The proportionate stratified sampling technique was used in selecting the four schools from already existing strata of public and private schools. Simple random sampling technique was used to select two schools each from each stratum of public and private schools Using the lottery method, numbers were written on papers (1-8) and placed in a box, where two numbers were picked without replacement to determine the two public schools to use for the study. The same procedure was done for the private schools. Thereafter, one public and one private school made up the experimental group and one public and one private school made up the control group.

The instrument used for data collection in the study was title Students' Attitude to Economic Questionnaire (SAEQ). The SAEQ had two sections, A and B. Section A consisted of the Bio-data of the respondents such as gender, identification code and school type. While the section B consisted of 30 items developed to be responded to using the five-point Likert scale for determining students towards attitude. The five-point Likert scale were rated thus: Strongly Agreed = SA, Agreed = A, Undecided = UD, Disagreed = D and Strongly Disagreed.

The experimental group were taught using portfolio assessment technique for nine weeks. The effectiveness of the portfolio assessment was determined from treatment. The researcher supervised the portfolio assessment process to ensure that the Economics teachers implemented the lessons as planned. The experimental group were exposed to the demand and supply contents for 9 weeks during regular lessons using the portfolio assessment technique. The portfolio assessment lesson plans on demand and supply developed by the researcher based on the rubrics developed contained the portfolio assessment rating sheets (rubrics). The students were required to submit only one work which they felt was their best sample of the work in every two weeks. The best samples were scored by the researcher using the portfolio rating sheets to indicate improvements, attitude and areas that needed improvements.

The control group were taught the aspects of demand and supply using the lesson plans developed by the researcher. They were taught the same contents of demand and supply using the lecture method.

The data collected in the study were computed using both descriptive and inferential statistics. The descriptive statistics of frequency distribution tables, simple, graphs, means and standard deviation were used for answering the research questions, while the Analysis of Covariance (ANCOVA) was used for testing the hypotheses formulated for the study at 0.05 level of significance. The choice of ANCOVA test statistic was used to help control for the effects of

pre-test on the posttest scores collected from the same groups. It was meant to control for any significant effects of pre-test on posttest mean scores of experimental and control groups.

Results and Discussion

Research Question One: What are the pre-test and post-test attitude to Economics direction of the SS II students in the experimental and control groups?

Table 1: Pretest and Posttest Attitude to Economics Direction for the Experimental and Control Groups.

TEST	ATTITUDE							
	Experimental				Control			
	Positive	Neutral	Negative	Total	Positive	Neutral	Negative	Total
Pre-test	7 (9%)	25(33%)	45(58%)	77	7(9%)	27(34%)	46(57%)	80
Post-test	51(66%)	21(27%)	5(7%)	77	6(8%)	28(35%)	46(57%)	80

Table 1 presents the pre-test and post-test attitude direction of students to Economics in the experimental and control groups. In the pre-test, the attitude direction of the experimental group revealed that 9% had positive attitude, as 33% had neutral attitude, while 58% had negative attitude towards Economics. On the post-test attitude direction, 66% of the experimental group had positive attitude, 27 were neutral, while 7% had negative attitude towards Economics. For the control, Table 1 showed that in the pretest 9% had positive attitude, 34% were neutral and 57% had negative attitude towards Economics. The post-test Economics attitude direction for the control group revealed that 8% had positive attitude, 35% had neutral while 57% had negative attitude towards Economics. The finding shows that students in the experimental group had a higher attitude direction after treatment using portfolio assessment technique than those in the control group who were not exposed to treatment. The results showed that students in both groups had poor attitude and almost at the same level, but after the intervention the experimental group had higher positive attitude than the control group as indicated in the posttest results. It can be deduced that portfolio assessment technique did help improve students' attitude to Economics.

Research Question Two: What is the post-test attitude to Economics direction of the SS II male and female students in the experimental group?

Table 2: Post-Test Attitude Economics Direction of Male and Female Students

Gender	N	Positive	Neutral	Negative	%
Males	36	19 (53%)	13 (36%)	4 (11%)	100%
Females	41	32 (78%)	8 (20%)	1 (2%)	100%

Table 2 presents the post-test students' attitude direction based on gender, which revealed that 52% of male had positive attitude, 36% had neutral attitude while 11% had negative attitude towards Economics. The post-test female attitude direction revealed that 78% have positive attitude, 20% have neutral attitude while 2% have negative attitude. The results implied that female had higher positive attitude compared to their male counterparts. It can be deduced from the results that

portfolio assessment technique helped improve female students' attitude to Economics more than male students.

Research Question Three

What is the post-test attitude to Economics direction of the SS II experimental group students in public and private schools?

Table 3: Post-test Attitude to Economics Direction of Students of Public and Private Schools

School Type	N	Positive	Neutral	Negative	%
Public	38	30 (79%)	8 (21%)	---	100
Private	39	23 (59%)	16 (41%)	---	100

Table 3 presents the post-test students direction of attitude to Economics based on school type. The results revealed that 79% of students in public schools had positive attitude, 21% had neutral attitude while non indicated negative attitude. The post-test private school students' attitude to Economics direction revealed that 59% had positive attitude, 41% had neutral attitude and none had negative attitude. Table 5 showed that public secondary schools had higher positive attitude to Economics compared to the private secondary school students. It can be deduced that portfolio assessment technique did help improve public secondary school students' attitude to Economics.

Hypothesis One: There is no significant difference between the pre-test and post-test attitude to Economics mean scores of the SS II students in the experimental and control groups.

Table 4: ANCOVA Results for Difference Between the Pre-test and Post-test Attitude to Economics Mean Scores of the Experimental and Control Groups.

Source	Type 111 Sums of Squared	Df	Mean Square	F	Sig	Partial Squared	Eta
Corrected model	72103.348a	2	36051.674	285.572	.000	.788	
Intercept	15232.580	1	15232.580	120.660	.000	.439	
Covariate	27371.476	1	27371.476	216.815	.000	.585	
Group	44891.550	1	44891.550	355.594	.000	.698	
Error	19441.531	154	126.244				
Total	1763550.000	157					
Corrected Total	91544.879	156					

a. R Squared = .778 (Adjusted R Squared = .785)

Analysis of Covariance (ANCOVA) was conducted to determine if any significant difference exists between the pretest and posttest Economics attitude mean scores of the experimental and control groups. The results in Table 4 shows that $F(1,54) = 355.594$, $p < 0.05$. Since the p-value of 0.000 is less than 0.05 level of significance, the null hypothesis not retained, indicating that there was a significant effect of portfolio assessment technique on students' attitude. The result further reveals an adjusted R squared value of .785 which means that 78.5 percent of the variation in the dependent variable which is Economics attitude is explained by variation in the treatment of portfolio assessment technique, while the remaining 21.5 is due to other factors not included in the study. Hence, there was enough evidence that portfolio assessment technique did help improve the secondary school students' attitude towards Economics.

Hypothesis Two: There is no significant difference between the post-test attitude to Economics mean scores of the SS II male and female students in the experimental group.

Table 5: ANCOVA Results of Post-test Attitude to Economics Mean Score of Male and Female Students

Source	Type 111 Sums of Squared	Df	Mean Square	F	Sig	Partial Eta Squared
Corrected model	4720.922a	2	2360.461	14.365	.000	.280
Intercept	26423.942	1	26423.942	160.809	.000	.685
Covariate	3832.576	1	3832.576	23.324	.000	.240
Gender	176.472	1	176.472	1.074	.303	.014
Error	12159.598	74	164.319			
Total	1133133.000	77				
Corrected Total	161880.519	76				

a. R Squared = .280 (Adjusted R Squared = .260)

Analysis of Covariance (ANCOVA) was conducted to find out if a significant difference between the posttest attitudes mean score of the experimental groups of students offering economics based on gender. Table 5 shows that $F(1,74) = 1.074$, $p > 0.05$. The p-value of 0.303 is greater than 0.05 level of significance hence, the null hypothesis was retained, indicating that there was no significant difference between the posttest attitudes mean score of students in the experimental group based on gender. The result further reveals an adjusted R squared value of .260 which means that only 26.0 percent of the variation in the dependent variable which is attitude is explained by gender, while the remaining 74.0 percent is due to other factors not considered in the study. Hence, we can say that portfolio assessment technique can help improve students' attitude toward Economics irrespective of the gender.

Hypothesis three: There is no significant difference between the post-test attitude to Economics mean scores of the public and private SS II students in the experimental group.

Table 6: ANCOVA Results of Post-test Attitude to Economics Mean Scores of Public and Private School

Source	Type 111 Sums of Squared	Df	Mean Square	F	Sig	Partial Eta Squared
Corrected model	901.784a	2	450.892	2.016	.0140	.052
Intercept	5382.814	1	5382.814	238.688	.000	.763
Covariate	29.668	1	29.668	.133	.717	.002
School Type	759.504	1	759.594	3.396	.069	.044
Error	16550.165	74	223.651			
Total	1146988.000	77				
Corrected Total	17451.948	76				

a. R Squared = .052 (Adjusted R Squared = .026)

Analysis of Covariance (ANCOVA) was conducted to determine if a significant difference between the posttest attitude mean score of the experimental groups of students in Economics based on school type in Pankshin LGA. Table 6 shows that $F(1,74) = 3.396$, $p > 0.05$. Since the p-value of 0.069 is greater than 0.05 level of significance, the null hypothesis was retained, indicating that there was no significant difference between the posttest attitude to Economics mean scores of the students in the experimental group of based on school type. The result further reveals an adjusted R squared value of .026 which means that 2.6 percent of the variation in the dependent

variable is explained by variation in school type, while the remaining 97.4 percent is due to other factors not included in this study. Hence, we can say that portfolio assessment technique can help improve students' attitude to Economics irrespective of their type of school.

Discussion of Findings

The results on research question one on the pretest and posttest attitude to Economics of students in the experimental and control groups showed that students in the experimental group had a higher attitude direction after treatment using portfolio assessment technique than those in the control group who were not exposed to the treatment. The results of the pre-test indicated that the students in both groups had low attitude and were almost at the same level, but that after the intervention the experimental group performed better than the control group in post-test. It was observed that portfolio assessment technique did improve students' attitude to Economics. The finding is in agreement with Oyelola (2017), who found that motivating students to learn through portfolio assessment technique had positive direct effects on the students' attitudes towards economics whereby intrinsic factor had the strongest and the most significant effect on students' attitudes toward economics. It also agrees with Filade, Uwannah, Amanze, Ajibola and Omotosho (2020) who reported that there was a significant influence of students' attitude towards and academic achievement in Economics. They found that both male and female students had almost the same attitude towards Economics as a course. Also, the attitude of students towards Economics as a course was the same at different academic levels. However, the finding is contrary to the findings of Dauda (2021), who reported that portfolio assessment did not make any difference in the students' attitudes towards physics.

On research question two, the findings disclosed that the posttest attitude direction of SSII students in Economics based on gender. The finding implies that the female students had higher positive attitude compared to male students. It can be deduced that portfolio assessment technique showed a slight improvement in female students' attitude in Economics more than male students. The finding is in conjunction with the findings of Onuoha, Ezinne and Okoye, (2019) that students' gender had no influence on the academic achievement of students in Economics, but that students' attitude had a significant effect on their academic achievement after exposing them to portfolio assessment technique. Similarly, the finding is in line with Osman and Adam (2017), who reported that Portfolio assessment enabled students to reflect on their real performance, to show their weak and strong domain, indicating students' progress in the learning process and that portfolio assessment encouraged students' attitude towards Economics.

Findings on research question three revealed that the posttest direction of attitude to Economics of the SSII students in based on school type, indicated that public secondary schools had positive attitude compared to private secondary school students. It showed that portfolio assessment technique improved public secondary school students' attitude towards Economics more than their counterparts in private schools. The findings is in conjunction with the findings of Filade, Uwannah, Amanze, Ajibola and Omotosho, (2020) who found that there was a significant influence of gender on students' attitude towards Economics. Both male and female students had almost the same attitude towards Economics after they were exposed to portfolio assessment. The finding did not agree with the findings of Dauda (2021) who found that portfolio assessment did not make any difference in the students' attitudes towards physics based on gender.

The findings on hypothesis one showed that there was no significant difference between the pretest and posttest attitude to Economics mean score of the students in experimental and control groups. The findings revealed that with $F(1,54) = 355.594$, $p < 0.05$, the p-value of 0.000 was less than 0.05 level of significance, whereby the null hypothesis was not retained indicating

that there was a significant effect portfolio assessment technique on students' attitude. The findings revealed an adjusted R squared value of .785 which meant that 79 percent of the variation in the students' attitude was explained by the treatment of portfolio assessment technique, while the remaining 21 percent was due to other factors not included in this study. The finding that the data provided sufficient evidence that portfolio assessment technique helped to improve students' attitude towards Economics in secondary schools. The finding is in conjunction with Khalid (2015) who indicated a positive change in the posttest attitude of the two groups in favour of the experimental.

Result on hypothesis two on post-test attitude mean scores of the experimental group based on gender in which Analysis of Covariance (ANCOVA) was conducted to find out if a significant difference between the posttest attitude mean scores of the experimental groups of the students showed that $F(1,74) = 1.074$, $p > 0.05$, the p-value of 0.303 is greater than 0.05 level of significance, the null hypothesis was accepted, indicating that there was no significant difference between the posttest attitude mean scores of students in the experimental group based on gender. The findings revealed that with adjusted R squared value of 0.260 meaning that 26.0 percent of the variation in the students' attitude was explained by variation in gender while the remaining 74.0 percent was due to other factors not included in the study. The finding is in agreement with the findings of Al-Abdullatif (2020) reported that 64 seventh-grade participants demonstrated a good-to-high level of practicing SRL within the flipped classroom environment. The students self-regulated their metacognitive learning strategies in the flipped classroom environment more than those in the traditional learning environment. In terms of their academic achievement, no statistically significant difference was detected between the traditional and flipped classrooms. Associations between the students SRL and academic achievement was identified to be influenced by several other factors.

The findings on hypothesis three on difference between the posttest Economics attitude direction of students in the experimental group based on school type revealed that for $F(1,74) = 3.396$, $p > 0.05$, the p-value of 0.069 is greater than 0.05 level of significance, the null hypothesis was retained, indicating that there was no significant difference between the posttest attitude mean score of the experimental group of students in Economics based on school type in Pankshin. The result further revealed an adjusted R squared value of .026, which means that 2.6 percent of the variation in the dependent variable was explained by variation in school type, while the remaining 97.4 was due to other factors not considered in the study. Thus, we can say that portfolio assessment technique helped to improve students' attitude to Economics.

Conclusion

The findings of the study demonstrated that the portfolio assessment technique significantly improved students' attitude toward Economics in Pankshin, Plateau State. Before the intervention, students in both the experimental and control groups exhibited largely negative and neutral attitudes toward the subject, reflecting longstanding challenges linked to traditional teaching and assessment methods. After the introduction of portfolio assessment, students in the experimental group showed a marked shift toward more positive attitudes, while the control group remained largely unchanged. The results further indicated that the positive impact of portfolio assessment was consistent across gender and school type, showing that the technique is effective regardless of these factors. This suggests that portfolio assessment promotes deeper engagement, reflective learning and real-life application of economic concepts, enabling students to develop more meaningful interest and confidence in the subject. The study therefore concludes that the

adoption of portfolio assessment provides a viable pathway for improving learners' perception, motivation and readiness for successful achievement in Economics.

Recommendations

1. Schools and Economics teachers should integrate portfolio assessment technique into regular classroom practice, as the study showed that students exposed to this form of assessment developed significantly more positive attitudes toward Economics than those taught and assessed with traditional methods.
2. Regular workshops, seminars and professional development programmes should be organized to train Economics teachers on the effective use of portfolio assessment, instructional strategies that promote learner participation and continuous assessment aligned with real-life application of concepts.
3. Teachers should involve students in setting learning goals, selecting portfolio materials and conducting self-assessment. This promotes ownership of learning, improves critical thinking and enhances motivation factors shown to improve student attitude across gender and school types.
4. Educational stakeholders, including principals, government agencies and private school owners, should support classrooms with necessary materials such as folders, ICT tools and project-based learning aids to enable effective implementation of portfolio assessment and enhance Economics teaching and learning outcomes.

References

Airasian, P. W., & Russell, M. K. (2015). *Classroom assessment: Concepts and applications* (8th ed.). McGraw-Hill Education.

Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice, 5*(1), 7–74.

Eke, C. I., & Olagunju, A. M. (2019). Effects of portfolio assessment on students' achievement and attitude in Economics in senior secondary schools in Nigeria. *Journal of Educational Research and Development, 14*(2), 45–59.

Epstein, A. (2018). *Assessing students in the age of accountability*. Corwin Press.

Kanar, A. G. (2020). Portfolio assessment and student learning outcomes: A contemporary review. *International Journal of Education and Evaluation, 6*(3), 12–25.

Mokobia, P. A. (2017). Alternative assessment strategies for enhancing learner performance in Nigerian secondary schools. *Nigerian Journal of Curriculum Studies, 24*(1), 68–80.

Obi, T. U., & Adebayo, R. M. (2021). Influence of assessment techniques on students' interest and classroom participation in Economics. *African Journal of Educational Studies, 9*(4), 90–104.

Olatoye, R. A., & Aro, A. T. (2016). Teachers' use of continuous assessment and academic performance of secondary school students in Nigeria. *Journal of Educational Assessment in Africa, 2*(1), 27–39.

Paulson, F. L., Paulson, P. R., & Meyer, C. A. (1991). What makes a portfolio a portfolio? *Educational Leadership, 48*(5), 60–63.

Wiggins, G. (2012). *Educative assessment: Designing assessments to inform and improve student performance* (2nd ed.). Jossey-Bass.