



Effects of Assignments and Continuous Assessment Tests on Achievement in Economics among Secondary School Students in Kwara State, Nigeria

Mahmud Baba Usman¹ Adamu, Lucky Egho²

*Islamiyya College, Patigi
Kwara State, Nigeria.*

*²Institute of Education,
Ahmadu Bello University (ABU), Zaria,
Kaduna State, Nigeria.*

ABSTRACT

The study investigated the Effects of Assignments and Continuous Assessment Tests on Achievement in Economics among Secondary School Students in Kwara State, Nigeria. The study employed a quasi-experimental pre-test, post-test-Control group design. The purposive sampling technique was used to select three Public Secondary Schools in the Edu/Patigi Education Zone of Kwara State, while one hundred and twenty-one Students were also purposively selected to participate in the study during the First Term of the 2019/2020 academic session. An Independent sample t-test was used in testing the hypotheses. The two hypotheses were rejected. The result of hypothesis one revealed that Assignments had a significant effect in improving the achievement of Secondary School Students in Economics ($p\text{-value} 0.000 < 0.05$). The result of hypothesis two showed a $p\text{-value}$ of $0.000 < 0.05$ indicating that Continuous Assessment Tests had a significant effect in improving the achievement of Secondary School Students in Economics. It was recommended amongst others that Economics teachers and instructors be encouraged to give regular assignments to their students because of its positive impact on students' achievement in Economics.

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INTRODUCTION

Economics is one of the most important subjects offered in senior secondary schools. It plays a very significant role in developing the critical thinking and reasoning abilities of students. Economics has been defined by different people in various ways. It is defined as the study of ways of making choices and allocating scarce resources to satisfy human wants. Hall, (2013) defined Economics as the study of how individuals, firms and whole societies identify their most important needs and allocate and manage scarce resources in such a way that satisfies as many needs as possible. Since resources are scarce while human wants are unlimited, Economics deals with the study of how people utilize their scarce resources in the face of unlimited wants. It is a social science that studies how individuals, firms and governments make decisions and choices in the face of unlimited wants and allocate scarce resources to their most important, pressing and preferred needs.

In Nigeria, Economics is taught in senior secondary schools using Economics senior secondary school curriculum. The economics curriculum has to do with all the experiences and activities provided by the teacher/school to the students in the course of teaching Economics to achieve the objectives of the subject (Economics). As documented by the Federal Ministry of Education (FME), (2008) the guiding principle of the Economics curriculum is the need to equip graduates of senior secondary school with the basic knowledge and skills that will enable them to better appreciate the nature of economic problems in any society and adequately prepare them for the challenges in the Nigerian economy.

Economics is of great importance because it is a subject that has a direct utility which prepares a student for a wide range of career options, these include business, government, industries and other professional areas such as Banking, Accountancy, and Planning (Hall, 2013). Therefore, the need for economic literacy is obvious because it is a subject that has relevance



to everyday life and could prepare secondary school students for an entrepreneurial career. It helps in equipping secondary school students with entrepreneurial skills for becoming useful citizens even if they do not further their education. According to Finkelstein (2011), high school graduates will be making economic choices all their lives, as breadwinners and consumers, and as citizens and voters and they will need some capacity for critical judgment, whether or not they go to college. Thus, it is of great importance that the secondary school Economics curriculum is very interesting, enlightening, and revealing and addresses important economic issues in the country for students to gain meaningfully from the experiences, knowledge and skills for real-life activities. Whether students have gained meaningfully or not from the experiences, knowledge and skills provided through the Economics curriculum can only be determined through the academic achievement of students in the subject matter.

Academic achievement can be described as the quality and quantity of learning (changes) that have taken place in the learner after being exposed to a course of instruction during the teaching and learning experience within a specified period. Bell (2009) defined academic achievement as the ability to study and remember facts and to be able to communicate knowledge verbally or on paper. It is also referred to as how students deal with or accomplish different tasks given to them by their teachers. In schools, success is measured by academic achievement or how well a student meets certain standards set out by the institutions, the government or examination bodies. Bell (2009) maintained that the importance of students doing well in school has caught the attention of parents, legislators and government departments alike. Nwana (as cited in Tari, Tariq, Musbashira & Rabbia, 2012) described achievement as how much the pupils have learned and that test used to determine the achievement of learners is called an achievement test. Academic achievement, according to Musa (2012), refers to the quality of results produced by students as reflected in the quality of their examination scores. Academic achievement tests may include assignments, class tests, quizzes, school end-of-term examinations, senior secondary school examinations and other forms of tests. For instance, the achievement test that was used in this study is Economics Achievement Test developed by the researcher. The results/grades

gotten from these assignments/achievement tests were high, average, low and poor.

Despite the importance of Economics and the government's provision in terms of instructional materials and qualified teachers (Federal Ministry of Education, FME, 2008), students' achievement in Economics seems not to be encouraging. For example, the West African Examination Council Chief Examiner's Report (2004 through 2014) revealed that the achievement of students in Economics at the end of secondary education has remained poor. WAEC statistics on students' performance in Economics showed that credit passes recorded from 2004 to 2014 were: 37.59%, 36.24%, 45.5%, 34%, 28%, 41.7%, 56%, 59% and 56%, 52.98% and 58.2% respectively. This result implied that much is still left to be desired in the performance of students in SSCE economics if the performance level is to improve. Alaka and Obadara (2013) also noted that there has been the persistent poor achievement of students in West African Senior Secondary Certificate Examinations (WASSCE). This poor achievement of students in Economics, a subject that aids in developing students' critical and creative thinking is very disheartening.

No wonder the seeming dysfunctional, non-creativity, non-productivity and non-employability of secondary school graduates in the country. One of the identifiable reasons for such poor performances in the subject is the fact that students find some Economics concepts difficult (WAEC Chief Examiners Report, 2008). Other factors adduced for this poor achievement of students in Economics include poor teaching methods and over-reliance on summative assessment to measure students' level of achievement. (Ewumi, 2009; Olatoye & Adekoye, 2010; Emaikwu, 2012; Idris & Rajuddin, 2012; Ifeanyi-Uche & Ejabukwa, 2013; Jensen & Owen, 2013).

Instructional approaches used by teachers can make or mar students' potential to learn and achieve. Continuous quality improvement in formal learning depends upon well-conceived approaches to assessment that have both formative and summative functions. Assessment can have a formative function that can help teachers to improve their teaching and learners improve their learning. Formative assessment (assignments and continuous assessment tests) is the process used by teachers and students to recognize and respond to student learning in order to enhance their learning (Bell,



2009). These forms of assessments are diagnostic, identifying what learners do not know, as well as those in which they do well enough. Formative assessment is highly effective in raising the level of student attainment, increasing equity of students' outcomes, and improving students' ability to learn.

The formative assessment encompasses using lesson plans with ongoing classroom oral questioning, discussions, quizzes, assignments and tests, that keep students and teachers informed of students' progress towards meeting learning objectives. It also includes weekly tests, immediate feedback and remediation and re-teaching of concepts that were not learnt.

The utilization of formative testing in the teaching-learning process involves breaking up the subject matter content or course into smaller hierarchical units for instruction; specifying objectives for each unit; designing and administration of validated formative tests; offering group-based remediation in areas where students are deficient before moving to other units and then administration of summative tests on completion of all units. Breaking up subjects or courses into small units makes for adequate preparation for the tests by the students. Moreover, such frequent testing enables the students to get more involved and committed to the teaching-learning process thereby enhancing their performance. Formative assessment methods are important for raising overall levels of students' achievement.

Quantitative and qualitative research on formative assessment has shown that it is perhaps one of the most important interventions for promoting high performance ever studied. Bloom, Hastings and Madaus (as cited in Njiru, 2015) pointed out that formative assessment is useful to both the students (as a way of diagnosing students' learning difficulties and the prescription of alternative remedial measures) and the teacher (as a means of locating the specific difficulties that the students are experiencing within subject matter content and forecast summative evaluation result). According to Gronlund and Linn (as cited in Njiru, 2015), formative assessment serves three specific purposes. They are, to plan corrective action for overcoming learning deficiencies, to aid in motivating learners, and to increase retention and transfer of learning. According to them, students' responses to a formative test could be analyzed to reveal group and individual errors needing correction.

Formative assessment is not surprisingly taking its rightful place nationally but it appears that most formative assessment efforts lack substance and support which are critical for effectiveness. A growing number of researchers and educational leaders are making a compelling case for the improvement of formative assessment. Over the past twenty years educational research has pointed to the value of linking instructions to assessment (Marzano & Haystead, 2008), examining students' work to inform instructions and using formative assessment practices to drive learning ((Reeves, 2007).

For students' achievement to increase and for them to be productive and functional in this 21st century, there is every need for the application of students' participatory approaches; that is teaching-learning approaches that meaningfully engage the learners such as formative assessment instructional strategies where regular use of different formative assessment techniques such as frequent assignments, tests, quizzes and giving them feedback on their performance can be used to improve students' achievement in Economics. It is the contention of researchers, that feedback to students on such development would make them work harder to overcome the detected weakness. Hamisi (2012) noted that frequent use of formative assessment reduces anxiety when sitting for exams and this leads to higher academic achievement among students. Hence, this study aims to further establish the claim of scholars on the effect of formative assessment on the academic achievement of students in economics.

Considering the importance of Economics as a subject offered in senior secondary schools, the achievement of students in the subject has not been encouraging. The achievement of students in Economics at WAEC has been generally poor. WAEC chief examiner's reports covering five years described students' achievement in senior secondary school Economics between 2007 and 2011 as low, poor and average. The effect of this on the candidates' future and the nation's manpower development should be a cause of concern for the country's leaders, stakeholders in the education industry, and the nation as a whole. One of the reasons identified for this abysmal performance of students in external examinations is over-reliance on summative assessment instructional strategy. There is therefore a need to investigate whether



the use of the formative instructional strategy of assignments and continuous assessment tests could improve performance in Economics. Hence, this study investigated the effect of assignments and continuous assessment tests on the achievement of students in Economics among secondary school students.

Research Questions

The study was guided by the following research questions:

1. What is the effect of assignments on achievement in Economics among Secondary School Students in Kwara State?
2. What is the effect of continuous assessment tests (CAT) on achievement in Economics among Secondary School Students in Kwara State?

Research Hypotheses

The following hypothesis was formulated and tested at a 0.5 level of significance.

H₀₁: There is no significant effect of Assignments on Achievement in Economics among Secondary School Students in Kwara State.

H₀₂: There is no significant effect of Continuous Assessment Tests (CAT) on Achievement in Economics among Secondary School Students in Kwara State.

METHODOLOGY

This study adopts a quasi-experimental design, specifically the pretest-posttest control group design. The population for the study consisted of all SS 2 art students in Public Senior Secondary Schools offering Economics in the Edu/Patigi education zone of Kwara State, Nigeria. The population is made up of thirty-eight (38) Public Senior Secondary Schools SS II art students in the zone comprising of one thousand, two hundred and thirty-seven (1,237) male and nine hundred and sixty-eight (968) female students. This makes a total of two thousand, two hundred and five (2,205) senior secondary two (SS 2) art students. SS III students will be facing their Senior Secondary Certificate Examination (S.S.C.E) and are too busy to participate in the study. The sample for this study consisted of 121 students [48 males and 73 females drawn from three (3) Senior Secondary Schools in the

Edu/Patigi education zone of Kwara State, Nigeria. These three (3) schools which are co-educational and operate the same economics syllabus were selected using a purposive random sampling technique from a total of 38 Senior Secondary Schools in the zone.

Economics Achievement Test (EAT) which served as a pretest and posttest to the respondents on the topics covered during treatment was used to collect relevant data for the study. The Economics Achievement Test (EAT) consists of 50 multiple-choice items with four (4) options adopted from past WAEC questions. The Economics Achievement Tests (EAT) were reviewed and vetted for face and content validities by two experts in measurement and evaluation and two experienced senior secondary school economics teachers in Government Secondary School Lafiagi, Kwara State. The internal stability of EAT was determined using the test-retest approach, while the internal consistency of the same instrument was determined using the Kuder-Richardson formula 20 (K-R 20). The test instrument (EAT) was administered twice to the subjects at intervals of three (3) weeks. The scores obtained from the pilot testing of the instrument were later subjected to the Pearson product-moment correlation coefficient, where the coefficient value of 0.92 was obtained. Kidder-Richardson (K-R 20) was used to determine the internal consistency reliability. A coefficient value of 0.96 was obtained.

During the treatment, experimental group 1 was exposed to expository class teaching followed by formative assignments and experimental group 2 was exposed to expository class teaching followed by formative continuous assessment tests (CAT) after each unit while the control group was exposed to only expository class teaching without any form of formative assessment. At the end of the first two weeks of expository class teaching, experimental group 1 and experimental group 2 were given Assignments I and Test I respectively which were marked by the teachers and returned to the students with corrections. This was done at the end of every instructional unit while the control group was not exposed to any formative assessment throughout the treatment period. The data collected were analysed using mean, and standard deviation and the hypothesis were tested using an independent t-test.



RESULTS

Research Question One: What is the effect of Assignments on Achievement in Economics among Secondary School Students?

Table 1: Pre-test and Post-test mean and standard deviation scores for Experimental Group 1 and Control Group.

Groups	N	Pretest		Post-test		Percentage Gain
		Mean Score	Std. Dev	Mean Score	Std. Dev	
E G 1	40	30.10	1.24	40.80	.95	36%
C G	37	28.49	7.01	34.00	7.07	19%

Table 1 showed the mean and standard deviation of the assignment group and control group with percentage gains. It reveals that the post-test scores of the experimental assignment group have a mean gain score of 36% while the control group has a mean gain score of 19%. This is an indication that the higher mean score of the experimental assignment group resulted from the

assignments they were exposed to during classroom instruction.

Research Question Two: What is the effect of the Continuous Assessment Test (CAT) on Achievement in Economics among Secondary School Students?

Table 2: Pre-test and Post-test mean and standard deviation scores for Experimental Group 2 and Control Group.

Groups	N	Pretest		Post-test		Percentage Gain
		Mean Score	Std. Dev	Mean Score	Std. Dev	
EG 2	44	27.32	7.17	43.18	12.38	58%
C G	37	28.49	7.01	34.00	7.07	19%

Table 2 showed the mean and standard deviation of the continuous assessment tests (CAT) group and control group with percentage gains. It reveals that the post-test scores of the experimental CAT group have a mean gain score of 58% while the control group has a mean gain score of 19%. It could be said that the higher mean score of the experimental CAT group resulted from the continuous assessment tests they were exposed to during classroom instruction.

HYPOTHESES TESTING

Hypotheses 1 and 2 were tested at 0.05 level of significance using a t-test. The following are the results of the test from the data collected.

Hypothesis One: There is no significant effect of Assignments on the Academic Achievement of Secondary School Students in Economics.

Table 3: Results of the t-test Analysis of Post-test Mean Scores of the Experimental Group 1 and Control Group.

Group	N	Mean	SD	Df	t-cal	t-crit	p(sig)
EG 1	40	40.80	6.01	75	4.56	1.96	0.00
CG	37	34.00	7.07				

Calculated p < 0.05, Calculated t > 1.96, at df 75

Table 1 showed the effect of Assignments on students' academic

achievement in Economics, the result showed that the calculated p-value of 0.000 is lower than



the 0.05 alpha level of significance indicating that a significant difference exists between the Assignment group and the control group. The calculated post-test mean of the Assignment group (40.80) was significantly higher than the post-test mean of the Control group (34.00) implying a significant effect has taken place. Consequently, the null hypothesis which stated that there is no significant effect of assignments on the academic achievement of Secondary School Students in Economics was rejected

because the p-value was lower than 0.5 level of significance. There was a significant effect of assignments on achievement in Economics among Secondary School Students. That is, assignments improve students' achievement in Economics.

Hypothesis Two: There is no significant effect of the Continuous Assessment Test (CAT) on the Academic Achievement of Secondary School Students in Economics

Table 4: Results of the t-test Analysis of Post-test Mean Scores of the Experimental Group 2 and Control Group

Group	N	Mean	SD	Df	t-cal	t-crit	p(sig)
EG 2	44	43.18	12.38	79	4.00	1.96	0.00
CG	37	34.00	7.07				

Calculated p < 0.05, Calculated t > 1.96, at df 75

The result from the independent sample t-test statistics on the effect of Continuous Assessment Tests (CAT) on the post-test means scores of SS2 Students in Economics in Table 4.7 showed that the calculated p-value of 0.000 is lower than the 0.05 alpha level of significance indicating that significant difference exists between CAT group and the control group. The calculated post-test mean of the E G 2 group (43.18) was significantly higher than the post-test mean of the Control group (34.00) implying a significant effect has taken place. Consequently, the null hypothesis which stated that there is no significant effect of continuous assessment tests (CAT) on the Academic Achievement of Secondary School Students in Economics was rejected because the p-value was lower than 0.5 level of significance. Therefore, there was a significant effect of continuous assessment tests (CAT) on achievement in Economics among Secondary School Students. That is, tests improve students' achievement in Economics.

DISCUSSION

The findings of this study based on hypothesis one revealed that assignments have a significant effect on achievement in Economics among secondary school students. Research question one was answered through computation of the pre-test and post-test mean scores which revealed that assignments had a significant effect on the achievement of students in Economics. The result of a higher post-test mean score confirmed the improvement in the achievement of students

exposed to assignments during classroom instructions. This agrees with the findings of Olufemi (2014) who stated that students exposed to homework assignments in Mathematics had better academic achievement than those not exposed to homework assignments. The finding of the study is also in consonance with McMullen (2010) who in his study found that assignments have a visible impact on the academic achievement of students and therefore recommended more homework assignments as this could be useful for lowering the achievement gap between high and low achieving students.

In the same vein, the finding of this study also affirms the effectiveness of assignments in improving the academic achievement of students as established by Ovute and Ede, (2015) whose study shows that pre-lesson assignments are capable of enhancing students' achievement in statistical/mathematical aspects of Economics at secondary school level.

The result of hypothesis 2 revealed the significant effect of continuous assessment tests in improving students' achievement in Economics. Research question 2 which was answered through computation of the pre-test and the post-test mean scores showed that continuous assessment tests had a significant effect on achievement in Economics among secondary school students. The result of a higher post-test mean score confirmed the improvement in the achievements of students exposed to CAT treatment. The findings of this hypothesis are in agreement with Ajogbeje, (2013) who states that effective



utilization of formative assessment of class tests, enables adequate preparation of students for summative tests and such frequent tests enable the students to get more involved and committed to the teaching-learning process thereby enhancing their academic performance in the subject.

The result also agrees with Ajogbeje, (2012) who stated that one of the key factors which seem to contribute to the poor achievement of students in SSCE is the inadequate use of tests and other evaluation instruments during the instructional process which is to guide, direct and monitor students' learning and progress towards attainment of course objectives to improve students' academic achievement. The study also supported the view of Oluwatayo, (2007) who reported positively about formative assessment when he stated in his study carried out on continuous assessment as predictors of students' grades in SSCE Chemistry, that formative assessment in form of class tests improves students' academic achievement in Chemistry.

CONCLUSION

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

The result of the study revealed that Assignments have significant effects in improving the achievement of students in Economics among Secondary School Students. This conclusion was drawn from the analysis of research question one and the testing of hypothesis One.

Also, the result of analyzing research question 2 and hypothesis 2 has shown that Continuous Assessment Tests (CAT) have significant effects in improving the achievement of students in Economics among Secondary School Students.

In light of the findings from this study, the following recommendations are being made:

1. The findings of this study revealed that Assignments as a form of formative assessment have significant effects on the achievement of students in Economics among Secondary School Students. It is therefore recommended that Economics teachers and instructors be encouraged to frequently give assignments to their students because of its impact on students' achievement in Economics. The marked, recorded and corrected assignments should be given to the

students on time to enhance their achievement in Economics.

2. Continuous Assessment Tests (CAT) have a significant effect in improving the achievement of students in Economics among Secondary School Students. It is recommended that Economics teachers and instructors be encouraged to give frequent continuous assessment tests to their students during classroom instructions. The tests should be marked, recorded and corrections given to students to enhance their performance in Economics.

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