

RELATIONSHIP BETWEEN STUDENTS' CONTINUOUS ASSESSMENT GRADES AND ACHIEVEMENT IN SECONDARY SCHOOL EXAMINATION IN ENUGU STATE

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ABSTRACT

This study focused on the relationship between Students Continuous Assessment Grades and Achievement in Secondary School Examination in Enugu State. Two specific purposes with two corresponding research questions and as well as two null hypotheses were formulated to guide the study. Correlational survey research design was adopted for the study. The population of the study comprised twenty-six thousand, nine hundred and seventy nine (26,979) students of 2021 academic session who graduated in public senior secondary schools in Enugu State. The sample of study comprised three hundred and ninety-four students randomly selected. Pearson Product Moment Correlation Coefficient statistical tool was used to answer the research questions while Linear Regression was used to test the hypotheses. The findings from the data analysis showed that: there is a high positive relationship between continuous assessment scores of Students and their achievement in Civic Education in NECO SSCE, there is a high positive relationship between Continuous Assessment scores and students' achievement in Biology in NECO SSCE while the hypotheses revealed that there is significant correlation between the Continuous Assessment scores and the students' achievement in Civil Education and Biology in NECO SSCE in Enugu State. Based on the findings, the study recommended that: Government should promote continuous assessment program under federal and state levels for developing assessment techniques and our existing educational environment should be developed at level.

Keywords: Continuous Assessment, Grades, Relationship, Achievement, Secondary School and Examination

Introduction

In educational practice, continuous assessment has been recognized as an integral part of teaching and learning process and an indispensable instrument of quality assurance. It has been stressed that continuous assessment as a Guidance-Oriented tool benefits the teachers, learners, educators and parents. Continuous assessment is said to be guidance-oriented in

the sense that the information collected will be used for educational, vocational and personal-social decision-making for the child. Denga, (2013) observed that guidance and counseling activities flourish well on valid, sequential, systematic, continuous, cumulative, and comprehensive information. Continuous assessment is said to be systematic in the sense that it is planned and graded to suit the age and experience of the

children and is given at suitable intervals during the school year. An appropriate timing of Continuous Assessment saves students being tested from becoming bored with too many assessments. Comprehensiveness of continuous assessment means that it is not focused on academic skills alone. It embraces the cognitive, the psychomotor and the affective domains. A child is assessed as a total entity using all the psychometric devices such as test and non test techniques. Cumulative characteristics of continuous assessment means that all information gathered on the individual have to be pooled together before a decision can be taken.

Hence, Continuous assessment is a process of periodic collection of information throughout a course or programme of study with the purpose of determining the progress towards goal attainment of the learner. The periodic assessments are used to update teachers' judgment about their pupils based on accumulated information collected. Continuous assessment demands that teacher takes into consideration information obtained from all sources about the child. Therefore it is a device for monitoring and improving learning in schools and the general performance of students since the final evaluation and grading will depend largely on the systematic collection of comprehensive and diagnostic data over a specific period of time.

In the work of Ezewu and Okoye cited in Chinedu, (2019), continuous assessment is represented to as a systematic and objective process of determining the extent of a student's performance in all the expected changes in his behavior, from the day he enters enrolls in a course of study and with a view to using them to guide and shape the student and to serve as basis for making important decisions about the student. In

other words, continuous assessment should be systematic, comprehensive, cumulative, and guidance oriented.

Continuous assessment has been incorporated into Nigerian educational system right from 1982 when the 6-3-3-4 educational system was launched in the country. The internal assessment was in form of examinations conducted by the school to determine students' achievement at the end of the school terms and at the end of each year to determine the students' eligibility for promotion to the next level. The external assessment on the other hand was in form of the examination conducted by Examination Body for the purpose of certification at the end of a post primary level of education.

In the same development, the Federal Government of Nigeria introduced the system of assessment in which internal assessment formed an integral part of the external assessment. Both internal and external assessments are combined to determine the overall students' academic performance. At that level, Continuous Assessment contributed 60 percent of the students' final grading between 1986 and 1987 when the programme started, then later, 30 percent but presently, it contributes 40 percent of the total score for each student in the state. The remaining 60 percent is derived from the students' performance/achievement in Senior Secondary School Certificate Examination (SSSCE) Core curriculum as stated below.

Civic Education and Biology are also important subject in the secondary school curriculum (NECO, 2014). These first three subjects are recognized as compulsory subjects and Biology as science elective subject in Senior Secondary Education level of Federal Republic of Nigeria (NECO 2014). Moreover, the public examination

bodies that conduct Senior School Certificate (SSCE) examination in these subjects are West African Examination Council (WAEC), and National Examination Council (NECO).

Civic education is a subject under the social sciences. It is the study of the rights and duties of citizens, concerning the government and the civic environment. It is also a study of the ways the government works in a society. Okoro, (2010) asserted that, Civic Education is aimed at the inculcation and development of national and social values in the citizens.

Biology is one of the science subjects that senior secondary school students offer at the senior levels in the Nigerian secondary schools. Biology is a very important science subject and a requirement for further learning of a number of science-related professional courses like Medicine, Agriculture, Pharmacy, etc. In contemporary Nigeria, greater emphasis is placed on science and technological development, as a result, students are being encouraged to take up science-related subjects. Biology pervades literally every field of human endeavour, and plays a fundamental role in educational advancement. This is seen in all the technological advancements in the world today, which is because of scientific investigations. Esiobu, (2015) asserted that, the issue remains that in most secondary schools in Nigeria, there is high rate of failure in the subject. Studies have shown that secondary school students are exhibiting low interest in Biology. This low interest of students in Biology has been traced to poor achievement in examinations. In our march towards scientific and technological advancement, we need nothing short of good achievement in biology at all levels of

schooling (Esiobu, 2015). Unfortunately, achievement of students in Biology at the end of the secondary school has not improved in the last decade. Folorunso (2014) has linked poor achievement trend in Biology particularly to the lack of instructional resources in schools due to poor funding of schools. The poor funding of schools has hindered the principals from providing the teachers with adequate instructional resources for effective teaching and learning. National examination Council (NECO) was used for this research work because it was established for Nigerian students only. National Examination Council (NECO) was established in 1999 by the Federal Government to conduct examination in parallel with the West African Examination Council (WAEC). Its mandate was to take over the responsibilities of the National Board for Educational Measurement (NBEM). Academic achievement according to Adediwura (2017), is something learners do or achieve at school, college or university, in class, in a laboratory or field work. He saw academic achievement as being represented by tests and examination scores or marks assigned by the subject teachers. It could also be said to be any expression used to represent students' scholastic standing. However, the achievement of students in Continuous Assessment was supposed to be related to their performance in the final Senior Secondary School Certificate Examination since uniform standard is maintained, but this has not been the case in Enugu State. Based on these the study aims to cover the relationship between continuous assessment grade and Senior Secondary School Examination (SSSCE) in Enugu State.

Statement of the Problem

Continuous assessment should predict the students' performance in SSCE since SSCE is based on the same qualities of CA and SSCE syllabus. Others are of the view that CA differs from one school to another because there are differences in the qualities of tests, expertise, assessment instruments used and in the procedure for scoring and grading in various schools. However, the researcher observed that a student may perform poorly in the continuous assessment but perform well in SSCE and vice versa. Also that a student may perform poorly in CA as well as in SSCE.

The researcher of this study also believe that some students may perform better in CA due to low standard of the teacher made- test, lack of ability to moderate questions, leniency in marking/scoring as it is an internal test conducted and marked in the school. Also parents uphold the idea that if standard is maintained in CA, students who do well in CA will definitely perform well in SSCE. Hence parents complain of the differences in their children's performances, that CA scores do not always show/go in line with the grades of SSCE.

Therefore, the study was to find out if any significant relationship exists between students' performances in CA and their performances/ achievements in SSCE, NECO in Civic Education and Biology since both are combined for their certificate. Therefore, the researcher intends to find out the relationship between students continuous assessment grade and their achievement in NECO SSCE in Enugu State.

Purpose of the Study

The general purpose of this study is to investigate the relationship between Continuous Assessment Grades and students' achievement in Secondary School

Examination in Enugu State, Nigeria. Specifically, the study sought to;

1. find out the degree of relationship between continuous assessment scores of Students and students' achievement in Civic Education in NECO/SSCE in Enugu State.
2. determine the relationship between Continuous Assessment scores and students' achievement in Biology in NECO/SSCE in Enugu State.

Research Questions

In this study, the following questions were raised to guide the study:

1. What is the relationship between continuous assessment scores of Students and students' achievement in Civic Education in NECO SSCE in Enugu State?
2. What is the relationship between Continuous Assessment scores and the students' achievement in Biology in NECO SSCE in Enugu State?

Hypotheses

The following null hypotheses guided the study and were tested at 0.05, level of significance:

- 1: There is no significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE.
- 2: There is no significant correlation between the Continuous Assessment scores and the students' achievement in Biology in NECO SSCE.

Reviewed of Related Literature SSCE (NECO) and Continuous Assessment (CA) Scores in Civic Education

Continuous assessment scores in Civic Education play a significant role in improving students performance. Udo (2011) revealed that students CA scores are of two dimensions either positive or negative, that CA scores on a high grade influence students performance in both internal and external examinations positively.

Gani & Attah (2013) who submitted that teachers do not adhere to the qualities of SBA and hence making it not to be comparable to external examinations. Teachers use SBA in preparing students for external examinations. If the mean performance in the external examinations and that of SBA is all above the bench mark, it means teachers in Makurdi Local Government are using SBA properly in monitoring teaching and learning (Gani and Attah 2013) . However, the study found that, even though, the students performed well in all the examinations, there was a consistent higher variability of scores in the SBA than in the certificate examinations. This tends to be in agreement with Monday, Ikiroma and Nwogwugwu (2014) who said, the class teachers are in the best position to tell the extent to which the students have mastered the content. This could also be explained on the fact that, scores in the external examinations were midpoints of the ranges of grades obtained by the sampled students. This might account for the low variation in the spread of the scores.

The study of Nwogwugwu (2014) revealed that, the performance of student in Civic Education in Makurdi LGA of Benue State in SBA, WASSCE and NECO SSCE was also good since it was above the bench mark of

45.0. This was also evident in the cluster mean of 51.39 which was above the bench mark. The performance in Civic Education by the students in Makurdi LGA in the three Examinations was again above the bench mark of 45.0. This showed the students performed well in SBA, WASSCE and NECO SSCE. Abolade (2014), in his study on relationship between students continuous assessment scores and students performance in SSCE examination, observed that CA scores have a great impact on students academic performance.

SSCE (NECO) and Continuous Assessment (CA) Scores in Biology Subject

Biology is one of the science subjects that senior secondary school students offer at the senior levels in the Nigerian secondary schools. Oni, (2016), observed that continuous assessment scores play significantly roles on students performance in Biology. Nzewi and Nwosu (2009) observed that, the importance of resources for teaching and learning processes is to provide the teacher with the means of expanding the horizon of experience of students, thereby seeking to have a counterpart of firsthand experience. Teaching resources help to provide materials and opportunity for experiment. Nzewi and Nwosu, (2009) revealed the relationship between students' achievement in WASSCE Mathematics and NECO- SSCE Biology. The result shows a high positive value of $r = 0.73$ for the year 2004 lowest value of $r = 0.11$ for the year 2001 and an inverse (negative) relationship of $r = 0.04$ for the year 2002 between students' achievement in WASSCE Biology and NECO- SSCE Biology. Nzewi and Nwosu, affirmed that students' continuous

assessment scores have a positive relationship on students' performance in Biology examination.

Academic Achievement

Academic achievement is defined as the outcome of education. It is the extent to which a student, teacher or institution has achieved their educational goals. Wentling (2010) said that academic achievement refers to performance of individuals' objective to various types of knowledge and skills. Academic achievement, in other words has to do with what a student is able to achieve by execution of class work in the school. Academic achievement according to Stiggings (2001), is something learners do or achieve at school, college or university, in class, in a laboratory or field work. Adediwura (2017), saw academic achievement as being designated by tests and examination scores or marks assigned by the subject teachers. It could also be said to be any expression used to represent students' scholastic standing.

Methodology

This study adopted correlational research design. This type of design according to Nworgu (2015), sought to establish the relationship that existed between two or more variables, that is, Continuous Assessment Grades and achievement in Senior Secondary School Certificate. Usually such studies indicate the direction and magnitude of the relationship between the variables and employ the correlation coefficients or regression analysis for data analysis. This design was used because the study was based on the description of the relationship between Continuous Assessment Grades and Achievement in Senior Secondary School

Certificate Examination. The area of the Study is Enugu State. Enugu State has six Education Zones. Enugu State secondary schools are organized under the Post Primary School Management Board (PPSMB) with headquarters in the state capital, Enugu. The population of the study comprised 26,979 students who graduated in Senior Secondary School in the year 2021 in Enugu state (PPMB, 2022). Enugu State has two hundred and ninety two (292) secondary schools (PPMB, 2022). The sample for the study was 394 students that sat for NECO examination. This sample size was arrived by using Taro Yamane formular for finite population. Multi stage sampling procedure was employed by the researcher. In stage one, the schools were stratified into Education zones. In stage two, the researcher randomly drew three schools from each of the six education zones. The instrument was an official grades of students on Continuous Assessment and Senior Secondary School Certificate Examination Results Sheets from National Examination Council Office Enugu State. The students Continuous Assessment Grades and Senior Secondary School Examination results which were directly collected from NECO office in Enugu State. The scores were not submitted for validation because the data collected were official documents having no need for validation. The instrument was not passed through pilot testing since it made use of secondary students' official results/grades in NECO. The research with the use of official letter collected data from NECO. The body released the score used for the research. The research questions were answered using Pearson Products Moment Correlation coefficient (r). The null hypotheses were tested at 0.05 alpha levels using Linear Regression Tool at 0.05 alpha level. This was used to determine the degree of relationship

between the variables under study. In answering the research questions Pearson Product Moment Correlation was used. The decision rule was that any coefficient between 0.80 to 1 was described as very high or near perfect positive correlation while any coefficient between 0.60 to 0.79 was described as high positive relationship.

Coefficient between 0.40 to 0.59 was described as moderate positive relationship. After applying the Linear Regressions tool, the researcher rejected the null hypotheses when the P value was less than the alpha value and did not reject the null hypotheses when the P value was greater than the alpha value.

Results

Research Question 1

What is the relationship between Continuous Assessment scores of Students correlate with students' achievement in NECO Senior School Certificate Examination (SSSCE) in Civic Education?

Table 1: Relationship between Students Continuous Assessment Scores and Students' Achievement in Civic Education in NECO

Continuous Assessment Scores	Achievement in Civic Education	
CA Scores	1.0000 (394)	.726 (394)
Achievement in Civic Education	.726 (394)	1.0000 (394)
	r=0.726	r²=0.53

As can be seen from data in Table 1, the correlation coefficient is 0.726 indicating a high positive relationship. This signifies that there is a high positive relationship between students assessment scores and students' academic achievement in Civic Education in NECO SSCE in public secondary schools in Enugu State. However, the coefficient of determination(r^2) is 53% when converted, which shows the variation in students' academic achievement as indicated in NECO official results.

Research Question 2

What is the relationship between Continuous Assessment scores and students' achievement in Biology in NECO SSCE?

Table 2: Relationship between Student Continuous Assessment scores and Students' Academic achievement in Biology

Continuous Assessment Scores	Achievement in Biology	
CA Scores	1.0000 (394)	.648 (394)
Achievement in Biology	.648	1.0000

(394)

(394)

$r = 0.648$

$r^2 = 0.420$

Data in Table 2 indicate a correlation coefficient (r) of 0.64 which is within the range of high relationship. This signifies that there is a high relationship between student's continuous assessment scores and students' academic achievement in Biology in public secondary schools in Enugu State. Nevertheless, the coefficient of determination (r^2) is 0.648 which when converted to percentage 42%. This value explains the variation in academic achievement of students in Biology as shown by secondary school NECO official Record of students performance.

Research Hypotheses

HO₁: There is no significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE.

Table 3: Significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE

Computed r (r)	R: Squared (r ²)	Adjusted r -Square	Standar d error	Beta	t-cal	P- Value	Dec.
.726	.528	.527	3.42594	.726	14.552	.0000	Sig.

From Table 3, r represents the coefficient of correlation which is established on relationship between the two variables. The coefficient of determination (r^2) for computed r value is 0.726. This value shows students continuous assessment scores as it leads to students academic achievement in secondary schools. On the test of significance of the hypothesis as indicated in Table 3, the calculated 't' value is 14.552 while the p-value is 0.0000. This indicates a significant result between the p-value (0.000) that is less than the level of significance (0.05). Therefore, the hypothesis that there is no significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE was rejected.

HO₂: There is no Significant Correlation between the Continuous Assessment Scores and Students' Achievement in Biology in NECO SSCE.

Table 4: Significant Correlation between the Continuous Assessment Scores and Students' Achievement in Biology in NECO SSCE

Computed r (r)	r:Squared (r ²)	Adjusted r-Square	Standard error	Beta	t-cal	P- Value	Dec.
.648	.420	.418	4.49257	.648	9.808	.0000	Sig.

From Table 4, r represents the coefficient of correlation which is established on relationship between the two variables. The coefficient of determination (r^2) for computed r value is 0.648. This value indicates that students continuous assessment influence their academic achievement in Biology in NECO SSCE. On the test of significance of the hypothesis as indicated in table 4, the calculated 't' value is 9.808 while the p-value is 0.0000. This indicates a significant result between

the p-value (0.000) that is less than the level of significance (0.05). Therefore, the hypothesis that There is no significant correlation between the Continuous Assessment scores and the students' achievement in Biology in NECO SSCE was rejected.

Discussion

Findings from result of analysis of research question three as shown on Table 3 revealed that there was a high positive relationship between continuous assessment scores of Students and students' achievement in Civic Education in NECO SSCE. The finding anchored on the computed r and co-efficient of determination (r^2), which indicated that students' continuous' assessment scores enhanced students' academics achievement in Civic Education. Hypothesis 1 on Table 3 showed that there is significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE, as the alpha level (0.05) is t (probability) value of 0.000. In all indications, it was revealed that here was significant correlation between the continuous assessment scores of Students and their achievement in Civic education in NECO SSCE.

This finding agreed with Ajibade, (2011) who said that, continuous assessment techniques are very effective in the summative performance of students in the study of Civic Education. It plays critical role in academic performance of students. Therefore, from the literature reviewed, it was concluded that continuous assessment highly influences students' academic performance. From the foregoing, CA can influence the overall academic performance of students' grade through acquiring high scores.

The finding of the study shows that there was a high positive relationship between Continuous Assessment scores and students' achievement in Biology in NECO SSCE. Findings anchored on computed r and co-

efficient of determination (r^2), which implied that students' continuous assessment scores in Biology was attributed to students' academic achievement. Hypothesis 4 on Table 8 concluded that there was significant correlation between the Continuous Assessment scores and students' achievement in Biology in NECO SSCE.

However, the findings are in line with Ukuije, (2011) who suggested that Continuous Assessment policy requires that students' be assessed through both Continuous Assessment and terminal assessment to evaluate the progress and growth of students. Ysseldyke and Salvia (2011) asserted that Continuous Assessment takes account of the child's performances in tests, assignments, projects and other educational activities during a given period: term, semester, and year or during the entire period of an educational level. Teachers often take crucial decision on the promotion of students to the next class, identification of students who need remedial help and for grading and certification of students. Therefore, Continuous Assessment directly affects students' achievements. That was why the Federal Ministry of Education, Science and Technology trailing the same pathway of this exercise of Continuous Assessment and encouraging its practice observed that assessing the teaching process is an integral part of the curriculum in which the teacher must be fully involved. He further observed that it is an all embracing exercise, which the learner should undergo throughout the schooling period. Continuous Assessment is therefore, a way of obtaining the most valued assessment of the capabilities of a student. This is because it is an aggregate of all the

achievements of a student from the beginning of the course to the end of it, which determines the final achievement.

Conclusion

The study focused mainly on the relationship between Continuous Assessment (ca) Grades and Achievement in Secondary School Examination in Enugu State. Based on the findings, the following conclusions were made: the study shows high positive relationship between Continuous Assessment scores and students' achievement in Civic Education in NECO SSCE, which vehemently revealed that students' academic achievement in Civic Education, and are improved through their continuous assessment scores. This is an indication that students' continuous assessment grades are totally important on their academic performance in secondary schools.

Recommendations

1. Given the positive relationship between continuous assessment scores of Students and their achievement in Civic Education in NECO SSCE, in-service teachers should be given training in developing and using continuous assessments through refresher course like Civic Education. It is the need of the day to develop a new culture for enhancing continuous assessment in teaching.
2. As related to the relationship between Continuous Assessment scores and students' achievement in Biology in NECO SSCE, Secondary School Management Board should organize workshops for practical training in using continuous assessments.

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