

Relationship between Continuous Assessment Scores and Examination Scores

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Abstract: This research work was aimed at finding out whether there is a relationship between continuous assessment (CA) and final examination scores in some selected NDII statistics courses in Adamawa State Polytechnic Yola. Simple random sampling was used to select fifty eight (58) students from the Department of Statistics, College of Science and Technology, Adamawa State Polytechnic Yola and their scores from three (3) selected courses; STA 211, STA 212 and STA 214. The data collected were analyzed using Pearson's product moment correlation coefficient (r) and the null hypotheses were tested at 0.05 level of significance. The findings revealed that, there is a significant relationship between continuous assessment scores and examination scores of statistics diploma students in the three statistics courses. The study recommended that continuous assessment should be given serious consideration by lecturers and school administrators to improve the quality of the assessment methods and ensure transparency in continuous assessment since it explains and predict the future academic performances of diploma students.

Keywords: Continuous Assessment, Examinations, Statistics Courses, Diploma Students, Correlation

1. Introduction

Correlation studies is very important in educational research as opined by Aina (2012) that correlation is used to find out relationship between variables, determined degree of association and existing influences between variables. According to Ige (2007) correlation is a good instrument to be used to analyze relationship between performances of students in a subject.

Assessment plays a prominent role in educational progress and it is considered as a vital measurement tool in evaluating student performance. Ntiko J.N (2001) defines assessment as a "process for obtaining information that is used for making decisions about student curricular and programs and educational policy" it can therefore be a process of collecting information about student learning and performances to improve education.

Continuous assessment (C.A) is considered to be a systematic determination of the extent of students' progress or lack of it in school subjects including attitude and values from first day of students in school to the last day (Abadina, 2001). According to Okoro (2002), continuous assessment is a system of evaluation in which students are given a large number of tests at regular intervals rather than a single final examination at the end of the course. Continuous assessment is very important in all educational level in Nigeria. Ogar (2007) opined that through continuous assessment, progress of each student can be measured and monitored and appropriate counseling method can be put in place as the case may demand. The National Policy on Education laid strong emphasis on the use of continuous assessment practice at the various levels of Nigeria educational system. Assessment is very important in teaching and learning process; through assessment feedback could be provided to both students and teachers (Dennis, 1988). Continuous assessment as a system of evaluating students' performance has been in existence in all states in Nigeria since the inception of 6-3-3-4 system of education in (1982). Okwu and Orum, (2012).

1.1 Purpose of the Study

The purpose of this study was to establish whether a relationship existed between continuous assessment scores (CA) and the final examination scores in some selected NDII statistics courses in Adamawa State Polytechnic Yola using Pearson's correlation.

1.2 Research Hypotheses

H_0^1 : there is no significant relationship between continuous assessment scores and examination scores of ND II Statistics students in STA 211

H_0^2 : there is no significant relationship between continuous assessment scores and examination scores of ND II Statistics students in STA 212

H_0^3 : there is no significant relationship between continuous assessment scores and examination scores of ND II Statistics students in STA 214

2. Materials and Method

2.1 Research Design

The research is a study designed to survey, analyze and make comparison between continuous assessment scores and examination scores of some selected ND II statistics courses, College of Science and Technology, Adamawa State Polytechnic, Yola.

2.2 Population and Sample

The study comprises of all NDII Statistics Students in Adamawa State Polytechnic, Yola who completed their continuous assessment and participated in 2015/2016 academic session, First Semester Examination. A total of 58 Students (40 Male and 18 Female) were selected for the study.

2.3 Method of Data Analysis

Σ = summation

The data obtained was analyzed using a descriptive research method that used Pearson's correlation coefficient (r) via SPSS Version 20.

The model:

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where:

- n = number of observations
- x = continuous assessment scores
- y = examination scores

3. Result and Discussion

Hypothesis 1: there is no significant relationship between continuous assessment and examination scores of ND II Statistics students in STA 211 Course.

To test the hypothesis, continuous assessment and examination scores of ND II Statistics students in STA 211 Course were correlated to obtain the product moment correlation coefficient (r) and the result is presented in the table below.

Table 3.1 shows the correlation analysis of continuous assessment and examination scores in STA 211 Course

Assessment mode	N	Mean	S.D	r-cal	P-value	D.F	Decision
Continuous Assessment	58	26.789	4.864	0.697	0.037	56	Rejected
Examination Scores	58	26.414	11.380				

The result from the table 3.1 above reveals that there is a positive relationship $r(56) = 0.275$, $P = 0.037$ between continuous assessment and examination scores of ND II Statistics students in STA 211 Course. The analysis shows that the students on average obtained 26.79 out of 40% on their continuous assessment, and 26.41 out of 60% on their end of semester examination. Therefore from the analysis above, the result (r) is significant ($P < 0.05$). The null hypothesis is therefore rejected and concluded that there is a significant relationship between continuous assessment scores and examination scores ND II Statistics students in STA 211 Course.

Hypothesis 2: there is no significant relationship between continuous assessment and examination scores of ND II Statistics students in STA 212 Course.

To test the above hypothesis, continuous assessment and examination scores ND II Statistics students in STA 212 Course were correlated to obtain the product moment correlation coefficient (r) and the result is presented in table 3.1 below.

Information from table 3.1 indicates a positive relationship $r = 0.697$, $P = 0.000$ between continuous assessment and examination scores of ND II Statistics students in STA 212 Course. The analysis shows that the students on average obtained 26.79 out of 40% on their continuous assessment, and 26.41 out of 60% on their end of semester examination. Therefore from the analysis above, the result (r) is significant ($P < 0.05$). The null hypothesis is therefore rejected and concluded that there is a significant relationship between continuous assessment scores and examination scores of ND II Statistics students in STA 212 Course.

Hypothesis 3: there is no significant relationship between continuous assessment and examination scores of National Diploma students in STA 214.

To test the above hypothesis, continuous assessment and examination scores ND II Statistics students in STA 212 Course were correlated to obtain the product moment correlation coefficient (r) and the result is presented in table 3.2 below.

Table 3.2 shows the correlation analysis of continuous assessment and examination scores in STA 214 Course

Assessment mode	N	Mean	S.D	r-cal	P-value	D.F	Decision
Continuous Assessment	58	21.052	5.859	0.619	0.000	56	Rejected
Examination Scores	58	27.638	10.895				

Table 3.3 shows the correlation analysis of continuous assessment and examination scores in STA 214 Course

Assessment mode	N	Mean	S.D	r-cal	P-value	D.F	Decision
Continuous Assessment	58	21.052	5.859	0.619	0.000	56	Rejected
Examination Scores	58	27.638	10.895				

The data from table 3.3 above indicates a positive relationship $r = 0.619$, $P = 0.000$ between continuous assessment and examination scores of National Diploma students in STA 214. The analysis shows that the students on average obtained 21.05 out of 40% on their continuous assessment, and 27.64 out of 60% on their end of semester examination. Therefore from the analysis above, the result

(r) is significant ($P < 0.05$). The null hypothesis is therefore rejected and concluded that there is a significant relationship between continuous assessment scores and examination scores of ND II Statistics students in STA 212 Course.

4. Conclusion

In conclusion, the study attempted to establish relationship between continuous assessment and examination scores as one of the basis of predicting students' performance. From the outcome of this research, interpreted correlation coefficient shows the extent to which continuous assessment scores and examination scores are related in STA 211, STA 212 and STA 214 Courses respectively, as all the coefficient are positive and all of them are found to be statistically significant at 0.05 level of significance. It is therefore concluded that continuous assessment is paramount in teaching and learning process because it influenced students' performance in the final examination.

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