The Perceived Correlations between Continuous Assessment and Examination Scores among History Students in the University of Abuja, Nigeria

Dr. Gidado Bello Kumo  
Researcher, Department of Educational Foundation, University of Abuja, Nigeria
Dr. Mustapha Mohammad Jarimi  
Lecturer Department of Educational Foundation, University of Abuja, Nigeria

Abstract:  
The National Policy on Education identified the need to bring changes into the methods of assessing student’s performance in the university system in Nigeria. The introduction of the practice of continuous assessment combined with examination as a criterion for assessing such performance was received by many lecturers as a good development. (Iketuonye 1994) Many believe that such practice gives opportunity for lecturers to assess their student’s performance in all areas of the domains. However, the question often asked is whether high performance in continuous assessment necessarily means high performance in examinations, and whether or not there are positive correlations between students’ performance in continuous assessment and examinations. This study tried to answer these questions. Accordingly, a total of twenty-seven (27) undergraduate degree courses in history were sampled for the study. The study made use of the Pearson’s product moment correlation coefficient to determine if there is a correlation between performance of students in continuous assessment and examination. The study revealed a significant correlation between continuous assessment and students’ examinations in most of the cases analysed, with P ≤ 0.05. 

As can be seen during the first academic session, 71.4% of the courses analysed revealed a significant correlation, with P ≥ 0.05 in the remaining 29% of courses. In the case of the second session, the results significantly differ with what was found during the first session, with 71% of courses found not to be significantly correlated (P ≥ 0.05). Similar result was obtained in the thirteen (13) courses analysed in the third session with 61.5% of the courses not significantly related. Accordingly, 15 of the 27 courses correlated were not significant, with P ≥ 0.05, while the remaining 12 were significant at the 5% level with P ≤ 0.05.

The results further revealed that mean (%) of continuous assessment is higher than that of exam in all the given courses analyzed. However, a negative correlation was obtained in respect of His 204 (Africa in the 19th and 20th Century). Also, a generally below 50% mean percent was observed in students’ examinations except in His 204. The likely area of concern with this study which kept recurring in the analysis is the below average percentage observed constantly. This calls for extra efforts on the parts of students and their lecturers. While students used to work harder in examination questions should be regularly subjected to reliability tests before they are put to use. It should be noted also that some experts (Iketuonye 1994) believe that if continuous assessment and examination scores correlates positively, then there is no need to combine the scores while assessing students’ performance. This opinion prejudiced the advantage continuous assessment has in assessing all areas of students’ domain.

Keywords: Continuous assessment, correlation, achievements, performance, examination

1. Introduction

The introduction of continuous assessment in Nigeria’s educational system was meant to supplement the former practice where by “examination performance in the final year(semester) in a limited number of papers determines the grading of students” (Osadebe, 2015). The introduction of the continuous assessment practice therefore, expects that university lecturers should evaluate their students in a continuous manner after a successful teaching and learning of a particular set of lesson cues/modules in the areas of cognitive, affective and psychomotor domains in line with the provisions of the National Policy on Education (1978).This form of practice combines the continuous assessment of students’ achievements with the end of semester/year examination in an effort to eliminate the end of year single examination with its attendant perceived prejudices against staff and students.

However, since the introduction of this practice, many scholars like Ike (1994) have seen this effort as an additional liability on the academic staff, especially if CA results correlates significantly with examination scores. In this study, efforts were made to determine whether or not student’s continuous assessment scores are in any way related with their examination scores. The study further seeks to determine whether it can validly be concluded that high scores in
continuous assessment in examination. In essence, can we use continuous assessment scores to predict success or failures in examination? This is the basis upon which this study was conducted.

2. Background
Since the introduction of continuous assessment side by side with examinations, many lecturers and researchers Abe (1989) believe that aside the negative consequences, the ‘one pop’ examination brought undue restrictions on curriculum contents, methods and organization of the school in general. The practice of continuous assessment therefore, helps lecturers prepare adequately and test their students in various areas of domains. Bloom (1956) and Osadebe (2013) posited that the cognitive domain focuses on intellectual ability. The affective includes response to cues valuing, organization and characterization by value complex. The psychomotor domain concern itself with perception, complex, avert responses and adaptation.

The general understanding is that the introduction of continuous assessment side by side with final year examination helps to assess students in all areas including behaviors, attitudes, interests, socialization process and other non-cognitive behaviors that will help decision making about students. (Ipaye 1982). However, since the introduction of continuous assessment practice in the Nigerian University System, many scholars (Iketuonye 1994) has continued to argue on the need or otherwise of combining continuous assessment and examination. Iketuonye’s (1994) arguments further indicates that ‘if scores in continuous assessment correlates positively with examinations, then there is no need to combine the two assessment types’.

In their research on the relationship between continuous assessment and final examination scores, Fan et al (2014) found that there is a strong relationship between students’ continuous assessment scores and their semester examination scores. Also, Tobi (2015) in his study of the correlation between students’ continuous assessment and academic performance of students in the examination in urban and rural areas found out that there is a positive correlation between the continuous assessment strategies being used in Oyo state secondary schools both in urban and rural areas. The results further revealed that take-home assignments have promoted good revising habits. Similarly, Aina, (2013) in his research on the correlation between continuous assessment and students’ performance in physics discovered there is a strong correlation between the two-r calculated greater than the table value r. The result further revealed that students tend to pass higher in continuous assessment with 66.3%, as against 2.2% pass in examinations. He therefore recommended for a combination of continuous assessment and examination in computing students’ final grades. In their study on the role of continuous assessment in determining performance of computer science students, John et al (2018) found out that ‘the higher’ the frequency ‘the higher’ the performance of students. Similar finding was obtained by Adesoji et al (2013).

On the relationship between continuous assessment and examination scores, Ado et al (2015) found out that there is a significant relationship when they compared scores of education students in the North West University, Kano with P≤ 0.001. The researchers concluded that continuous assessment is ‘very important in teaching and learning’. Similar results were obtained by Aina et al (2013). Also, Kumar et al (2015) in this study on the relationships between continuous assessment and examination scores discovered that the two are positively correlated with P=0.037 in respect of ND II statistics students. The result concluded that generally continuous assessment scores influences ‘students’ performance in the final examination’. In his study, Gidado (2020) found that there are generally significant relationships between continuous assessment scores and biology examination scores of students in the University of Abuja.

3. Methodology
In this study, variation method of correlation theory was used to the level of correlation between student’s continuous assessment scores and their examinations. In method, it is expected that continuous assessment is directly proportional to the student’s examination. This means that as the former gets bigger, so does the latter. This concept can be translated as x/y =K for a constant K. History courses were readily available to the researcher.

The study used the hat-draw technique without replacement in sampling the department of history from the faculty of Arts, while the purposive sampling technique was used in drawing the various history courses that were used for the study.

The purposive-sampling technique as was used require that only students/samples whose marks were readily available at the time of data collection. Hence only those courses whose continuous assessment and examination scores were available at the time data collection were used in this study.

The study adopted the purposive sampling technique to help adopt the courses used. A total of one thousand and five hundred and ten (1,510) students were used in the study. The breakdown indicates that there were three hundred and thirty-six (336) students for the first session, three hundred and fifty-two (352) for the second session, and eight hundred and twenty-two students (822) for the third session.

In order to determine the level of correlation between student’s continuous assessment and examinations, the researcher made use of the Pearson’s Product Moment Correlation Coefficient. The study further calculated and presented mean scores of continuous assessment and examination as well as standard deviations to further elucidate on the performances. Also, both r values and significance level were calculated and presented for ease of interpretation.

4. Significance of the Study
The perceived problems of a one-shot examination (end of year) in the university setting in the assessment of students’ performance resulting in its rampant abuses led to a situation in which many experts in educational measurement are advocating for the use of both continuous assessment and examination. The significance of the study
therefore is to help the university system with valid data that will improve the quality of its policy design and decision making for evaluation purposes. The study also seeks to assist University students to realize the need to concentrate on their studies, carry out all given continuous assessment and boost their study habits. The study is also aimed at providing useful data to facilitate curriculum design and enhance quality evaluation of students’ performance. It will also assist students in understanding the need to concentrate on their studies, do all given continuous assessments and improve significantly on their study habits.

5. Results

The analysis based on the formulated hypothesis is presented below.

- Hypothesis: There is no significant relationship between the performance of students in Continuous Assessments and examinations in History during the first, second, and third academic sessions.

| Course                          | N  | CA/Exam | Mean   | -x%    | SD  | R  | Sign |
|---------------------------------|----|---------|--------|--------|-----|----|------|
| HIS 101 Foundation of Nigeria History | 54 | CA 30 Exam 70 | 23.84  | 79.47  | 7.43 | .368 | .005 |
| HIS 105 North Africa from the Conquest of Egypt to 1500 AD | 7  | CA 30 Exam 70 | 22.0   | 73.33  | 4.00 | .826 | .084 |
| HIS 201 History of Nigeria from C.1000 to 1500 AD | 16 | CA 30 Exam 70 | 26.59  | 88.63  | 2.37 | .754 | .000 |
| HIS 205 Economic History of Nigeria in the 19th Century | 58 | CA 30 Exam 70 | 20.11  | 67.03  | 5.39 | .592 | .000 |
| HIS 306 Comparative Industrial Growth of USA, USSR, Japan, China and Britain II | 12 | CA 30 Exam 70 | 19.40  | 64.67  | 1.34 | .994 | .001 |
| HIS 404 Contemporary History of the Middle East | 12 | CA 30 Exam 70 | 23.00  | 76.67  | 1.58 | .087 | .778 |
| HIS 405 Trade and Political in Middle Niger and Benue Valley | 9  | CA 30 Exam 70 | 19.60  | 65.33  | 3.60 | .782 | .007 |

*Table 1: Correlation of Students CA and Examination Scores in History 1st Academic Session*

As shown in table 1, a total of seven (7) history courses were used to determine the level of correlation between their continuous assessments and examination during the first academic session. The analysis reveals that there is significant correlation in five of the courses with p ≤ 0.05 with respect to history 101, 201, 205, 306 and history 405. The analysis further indicated that there was no significance in respect of two other courses with P ≥ 0.05. The values show a p = 0.084 ns for history 105 and p= 0.778 ns for history 404.

The range of the correlations on this table shows that four courses were high positive; HIS 205 Economic History of Nigeria in the 19th Century and HIS 101 Foundation of Nigerian History are moderate; while HIS 404 Contemporary History of the Middle East was low positive. However, the findings revealed that the mean percentages are higher in continuous assessments across all the seven courses than the mean percentages of examinations.
As shown in table 2 above, a total of seven courses were analysed during the second academic session. The results indicate that only two courses are significant at the .05 level. The courses are history 102 (Foundation of Nigerian History II) and History 401 (Nigerian History from 1800 to 1900 AD) with P ≤ 0.05. as for remaining five courses, the results show a no significance with P ≥ 0.05. History 103 P = 0.782ns, History 306 P= 0.092ns and History 403 P= 0.438ns.

Also, the correlation coefficients calculated reveal that only HIS 401 Nigerian Histories from 1800-1900 recorded a high positive correlation. Also, HIS 303 History Research Method I and HIS 403 Economic History of Nigeria in the 20th Century were moderately correlated along the positive axis; while HIS 102 Foundation of Nigerian History II, HIS 110 Blacks in the Diaspora and History 310 Japan from Tokugawa to Meiji Restoration show a low positive correlation. It is also observed from the analysis that negative correlation exists in one course (History 204). Also, a wide margin was observed in the mean scores and mean percentages of the courses, with the mean percentages are higher in continuous assessment than in examination across all courses.
As shown in table 3 above, thirteen (13) courses were analysed during the third academic session. The analysis reveals that five (5) out of the thirteen courses were significant with \( P \leq 0.005 \). In fact, History 110, History 201 and History 202 were significant beyond the 0.05 level with \( P \leq 0.001 \). The results further revealed that the remaining eight (8) courses were not significant with \( P \geq 0.05 \).

Also, a careful look at the table shows that eleven out of the thirteen courses analysed are positively correlated. The distribution of the correlation coefficient shows that only one course HIS 201 History of Nigeria to 1000 AD had a high positive correlation; while HIS 202 History of Nigeria from C 100-1500AD and HIS 110 Blacks in the Diaspora were moderate positive. The results further show that eight other courses were low positive. Two other courses; Nigerian History from 1800-1900; (HIS 401) and Foundation of Nigerian History (HIS 102) show a negative correlation.

### 6. Discussion of Findings

In this study, correlations between students’ continuous assessments and examination scores were carried out in History Department of the University of Abuja, using three successive academic sessions. The objective is to determine whether continuous assessment and examination scores are significantly related from Pearson’s correlation coefficient analysis carried out in table 1, the results revealed that there is a significant correlation at the .05 level in five of the seven courses analysed during the first academic session.

Also, five courses were not significantly correlated at the .05 level during the second session, and only HIS 102 (Foundation of Nigeria History II) and HIS 401 (Nigeria History from 1800 to 1900) were significant at the .05 level while HIS 204 (Africa in the 19th and 20th Century) revealed an insignificant negative correlation. As for the third session, 19 six out of thirteen courses revealed a significant correlation at the .05 level while the remaining courses were not significant at the same level. Only HIS 102 (Foundation of Nigeria History) and HIS 401 (Nigeria History from 1800 to 1900 AD) revealed an insignificantly negative correlation. From the analysis therefore it can be seen that only two courses were negative correlation. The result therefore is a good one as significant correlation demonstrates fairness in scoring.

The analysis also indicated that there was a high correlation in five of the seven courses analysed, while one course: HIS 404 contemporary History of the Middle East show a low positive correlation. Also, HIS 101 Foundation of Nigerian History was moderately correlated.

The results further indicated that the mean percentage of continuous assessment is higher than the examination means across all the seven courses. This finding is in agreement with the merits of continuous assessment identified by Maisamari (1995). According to him, the use of continuous assessment makes a pupil/student work harder and surer of is progress and likelihood of success at the end of the course.

In the same manner, the results on table 1.2 shows that only HIS 401 recorded a high positive correlation. Two other courses, HIS 303 and HIS 403 were moderately correlated. However, four other courses comprising of HIS 110 Blacks in the Diaspora, HIS 303 History Research Method I; HIS 310 (Japan from Tokuga to Meiji Restoration), HIS 306 Comparative Industrial Growth of USA, USSR, JAPAN, CHINA and BRITAIN II. It is further observed that only HIS 204 Africa in the 19th and 20th century that has negative correlation. From the results, therefore, it can be concluded that the scoring is generally fair. It is further observed from the results that there is a wide margin between the means, with the mean percentage higher in continuous assessment across all the courses analysed. The result further shows that the mean percentages for the examination are generally below 50% except in HIS 204 Africa in the 19th and 20th century. This finding is consistent with what was obtained during the first academic session. This also points to the strength of continuous assessment in augmenting examinations.

Also correlated were the third session scores for continuous assessment and examination in History. Thirteen courses, in all, were correlated. The results, like the previous ones shows that majority courses (8) yielded a positive correlation at least at the low level. Only two courses HIS 401 Nigerian History from 1800-1900; and HIS 102 Foundation of Nigeria History, yielded a negative correlation. Also, high correlation was recorded in HIS 201 History of Nigeria to 1000AD, while two other courses HIS 202 Nigerian History from C1000-1500AD and HIS 110 Blacks in the Diaspora show
a moderate correlation. Similarly, the mean percentages are higher in continuous assessment across all the thirteen courses. This has further confirmed the superiority of continuous assessment over examination.

However, one potential source of concern that kept reoccurring in these results is the fact that most of the mean percentages obtained in the examinations are below average i.e., 50%. This calls for extra efforts on the part of students and their lecturers. Students should be encouraged to study very hard, while examination environment is made friendly. On the other hand, lecturer's questions must be tested for reliability and validity before they are put to use. Unnecessary strictness in scoring should also be discouraged. This sentiment was also shared by Badmus (1996) who observed that valid evaluation is not achieved without validity of the test instrument. He concluded that test validity, has been a source of concern in university examinations.

On bad examination environment, Esezobor (1960) doubt whether we can boast of 50% of such environment where examination tables and so on are fully available and functional. Also, Denga and Denga (1998) have pointed out the need to evolve an effective teaching - learning environment as requisite for good examination performance. The lack of it pointed out leads to lack of self-confidence and preponderant examination checking. They concluded that an effective teaching - learning environment covers learning facilities, effective teaching and teacher motivation for maximum performance. This where continuous assessment is imperative. This might be a pointer to poor examination scores. However, it should be noted that high correlations between examination and continuous assessment in this study indicated that those who perform high in their continuous assessments also performed higher in examination. This is the basis of our conclusion that History lecturers are fair to all students irrespective of their sex.

However, Ikeotuonye's (1994) conclusion that if scores in continuous assessment correlates positively with examinations, then there is no need to combine the two is rather not shared by this study. The sentiment in this study is rather because continuous assessments are consistently higher than examination scores across majority of subjects, the combination of the two tend to give a better picture of the individual. This is especially so when we consider that the correlations are generally between moderate and low, with fewer cases of high correlations.

7. Conclusion

The findings from this study have indicated a significant relationship between continuous assessment of students and examination results in almost all history courses included in the study. The findings have further confirmed the arguments put forward by many educationists that if continuous assessment results are a true reflection of examinations, then it’s unnecessary to use the two as using the two will only cause additional burden on the lecturers. Proponents of this position has also failed to factor the advantages in continuous assessment which enables lecturers to diversify their interrogation of students' performance in all the domains. The ability of the continuous assessment to also examined students under relaxed atmosphere points to the need to continue with the practice.

Also, the non-significant sex difference obtained in most of the courses, further points to the fairness with which lecturers mark students continuous and examinations. High scores are always high scores in respective of the marker. However, below 50% grade obtained across many of the courses, though consistent with continuous assessment results does not appear to be healthy. Students need to be encouraged to study very hard and obtain higher grades. The University must survive to provide relevant teaching and learning materials to widen students understanding and enhance performance. This is the ultimate goal of schooling.

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