



HOMOGENEITY OF CONTINUOUS ASSESSMENT SCORES IN SECONDARY SCHOOLS IN NIGERIA

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Abstract

The study investigated whether continuous assessment scores are homogeneous in English Language and Mathematics in the sampled schools. This study employed survey and cross-sectional design. The population consisted of all public Junior Secondary School three students in South West Nigeria. The sample consisted of 2,520 Junior Secondary Schools three students' that were selected from 36 secondary schools in 18 Local Government Areas in three States based on multi-stage sampling technique. Stratified and simple random sampling techniques were employed to select the States, Local Government Areas, Schools and Students who continuous assessment scores were used for the study. Continuous Assessment Scores Retrieval Format was used to collect continuous assessment scores sent to the respective Ministries of Education in the three states. Box plots were employed to answer the questions raised. The findings revealed that continuous assessment scores in some schools were widely pread, some were moderately spread and some were closely spread that is, continuous assessment scores in the two subjects were heterogeneous with homogeneous subgroups. Based on the findings, it was recommended that teachers should be trained to improve on the way to generate valid and reliable continuous assessment scores. Teachers should meet to construct continuous assessment instruments for uniformity on the schools bases and be sensitized on the need for faithful award of Continuous assessment scores.

Key Words: Continuous Assessment scores, Homogeneity, Box plots

Introduction

One of the noticeable changes in Nigerian educational system since independence in 1960 is the introduction of Continuous Assessment Scheme which on the face value, deviated from the one inherited from the colonial masters, summative evaluation. Summative evaluation emphasizes assessment conducted at the end-of-term or year or end-of-session or end-of-course and gloves over the formative evaluation.

Continuous Assessment has been conceptualized by various authors and bodies, for instance, The Federal Ministry of Education, Science and Technology (1985) defined continuous assessment as a mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains of behaviour take account of

all his performances during a given period of schooling. Such an assessment involves the use of a great variety of modes of improving the learning and performance of the students.

The conduct of continuous assessment in schools seems to indicate that the objectives of the 6-3-3-4 or 9-3-4 system of education have not been achieved because some problems inherited in the former 6-5-2-3 system of education are still prevalent and even more compounded as observed by the researcher. Prominent among these problems, are the -do-or-die syndrome in examination, examination malpractices like cheating, copying, buying question papers, lobbying for marks in teachers' quarters, paying for people (mercenaries) to write examination on one's behalf, greater



emphasis on paper qualifications and so on.

Ademolekun in Ayodele (2012) noted that there is a gross disparity in the quality of education among secondary schools that would make it difficult to compare the grades given by one school with grades given by another. Despite the fact that these schools operate on the same syllabus and receive the same directives from State Ministry of Education on the way to operate in schools.

It is also noted that there are differences in textbooks being used in schools. The contents covered in schools may also vary. Experience equally shows that many teachers would be on a topic for a term or a year. Some would leave their subjects to student teachers and a topic may be taught throughout the six weeks of teaching practice. In effect, the contents of the syllabus may not be averagely or fully covered and such teachers are likely to record fake continuous assessment scores which may cause problem of comparability.

Omowaye (2002) and Adamolekun in Ayodele (2012) reported that schools can and do deliberately inflate the grades they give to their students to ensure that the students emerge successful no matter the grades they receive in the final external examination. Abbas (2000) stated that candidates' continuous assessment scores may not be the true reflection of his ability as he might be scored higher than his actual ability.

According to Ojerinde and Falayajo (1984) the differences in the quality of tests and other assessment instruments used in different schools as well as differences in the procedures of scoring and grading the various assessments in the various schools could pose problem of comparability of standard. Some teachers may set apparently difficult test items, which students may see as a threat to the class. From

experience, some teachers deliberately give tests to students when they are not prepared to teach their lessons. Ipaye in Ayodele (2012) noted that students complained that continuous assessment put them on continuous tension. These types of complaints reflect the students' negative attitude to their studies, which may also have adverse effect on their continuous assessment scores.

The researcher noted that the students have different characteristics which may make the students to perform differently. Students were from different socioeconomic class and cultural background. Society seems not to affect students equally. Some students have good background while some are not; this may affect students' performance and may eventually lead to disparity in students' continuous assessment scores. This may affect the extent to which these Continuous assessment scores may be comparable.

Bandele (1988) argued that variation in teachers and schools was accountable for non uniformity of performance standard. Linn, Baker and Betebenner (2002) argued that one of the issues with this act is the variation among states in terms of performance standards and the lack of uniformity in measures to determine if students are making adequate progress.

The problem of non-uniformity in the quality of assessments instruments, consistency in assessment administrative procedure and procedure for scoring and grading which varies from teacher to teacher. Some schools seem to use this advantage to unduly inflate continuous assessment scores of the students to favour their schools. Beside, some uniform grades are attached to scores like A, B, C, D, E, F despite the fact that there are no uniform criteria or parameters by which such conclusions are made. Not only that some school registrars seem to manipulate continuous assessment scores with or without the



knowledge of the subject teachers before submitting continuous assessment scores to ministries of Education to be used with JSS examination for the award of JSS certificate.

The study of Bandele (1993) pointed out that something was wrong in the internal assessments as practiced in schools in the country. His analysis showed that internal assessment is more prone to abuses and is less reliable than external assessment. The studies of Nwabuisi (1987) revealed that some teachers awarded false marks to pupils and some awarded marks to their pupils even on tests never administered. He went further to state that these practices continued to linger on repeatedly as years progressed.

The study investigated whether continuous assessment scores are homogeneous for the selected school subjects in the sampled schools.

Research Questions:

1. Are the continuous assessment scores homogeneous across the sampled schools for English Language?
2. Are the continuous assessment scores homogeneous across the sampled schools in Mathematics?

Question 1: Are Continuous Assessment scores homogeneous across schools in English Language?

Method

This study employed survey and cross-sectional design. The population consisted of all public Junior Secondary School three students in South West Nigeria. The sample consisted of 2,520 Junior Secondary Schools three students' that were selected from 36 secondary schools in 18 Local Government Areas in three States based on multi-stage sampling technique. Eight hundred and forty students were selected for the period of two years in each sampled State. Stratified and simple random sampling techniques were employed to select the States, Local Government Areas, Schools and Students who continuous assessment scores were used for the study. The researcher obtained official permission from the Commissioner for Education in the respective States. Then the appropriate data were collected from Continuous Assessment Units. A Proforma titled "Continuous Assessment Scores Retrieval Format" was used to collect continuous assessment scores of the students selected for the study. These are continuous assessment scores sent to the respective Ministries of Education in the various states. Box plots were employed to answer the questions raised.

Results

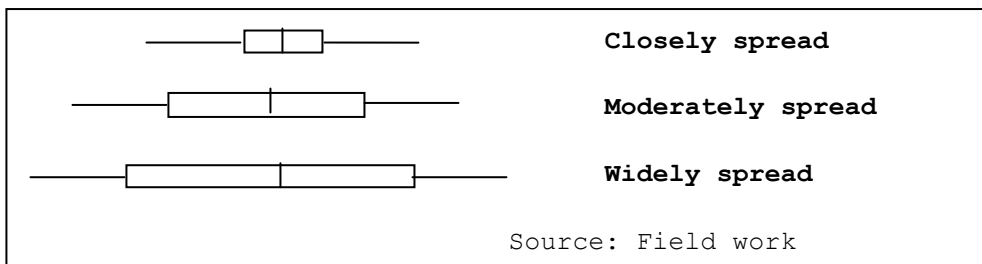
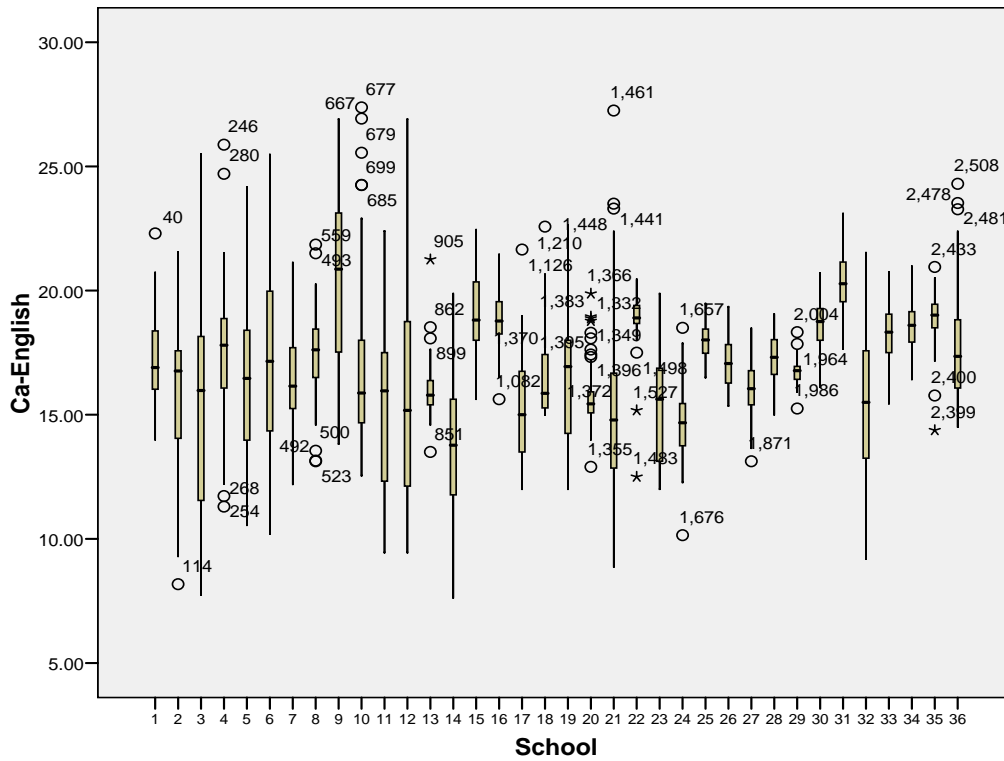
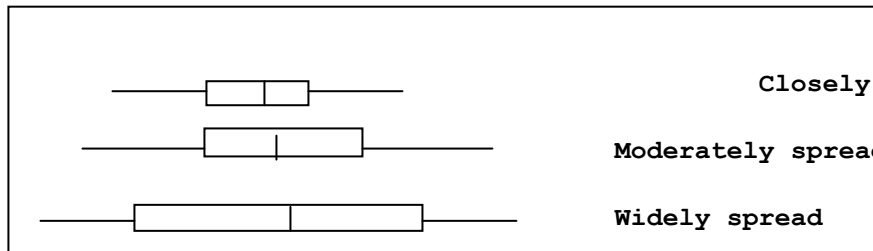
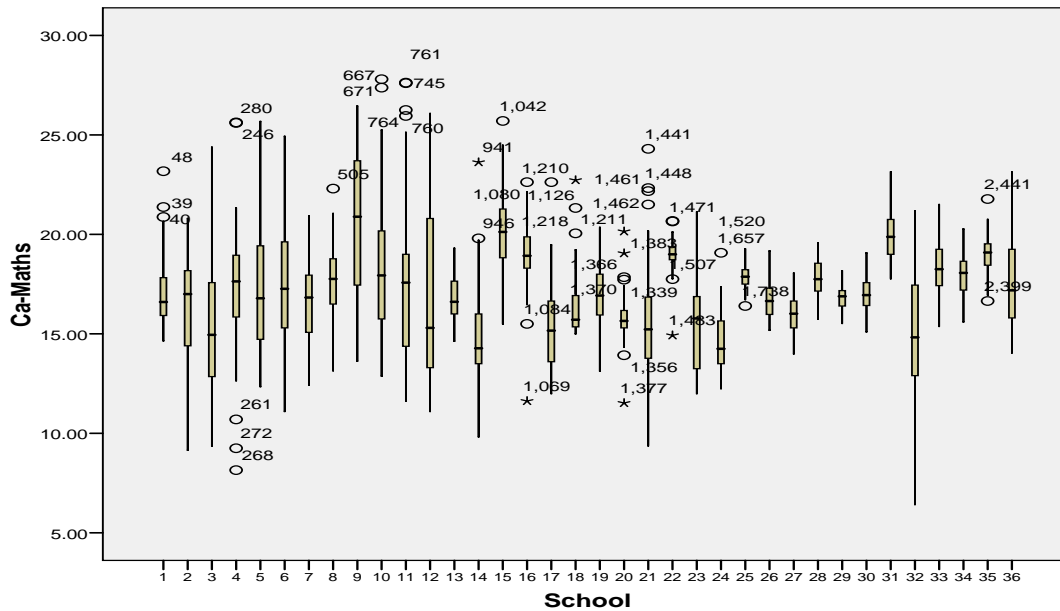


Figure I: Box Plot on the homogeneity of Continuous Assessment scores for English Language.

Figure I showed the spread of continuous assessment scores and the relative standing of the schools with respect to scores. The outline on the graph indicates the maximum and minimum obtained scores. The two ends of the rectangle represent the upper and lower quartiles while the black dot indicates the median. The continuous assessment scores of these schools 2,3,4,5,6,9,10,11,12, 14,17, 19, 21,23,32, and 36 were widely spread with coefficient of variation ranging from 12.5% - 29.9% (Appendix). Also, continuous assessment scores

of these schools 1, 7, 8,13,15,18,20,24,27, and 33 were moderately spread while coefficient of variation ranging from 6.6% - 12.0%. In addition, the continuous assessment scores of these schools 16, 22,25,26,28,29,30,31,34, and 35 were clustered with coefficient of variation ranging from 2.9% - 5.7%. It means schools continuous assessment scores were heterogeneous with homogeneous subgroups.



Source: Field work

Figure 2: Box Plot on the homogeneity of Continuous Assessment scores for Mathematics.

Figure ii showed the spread of continuous assessment scores and the relative standing of the schools with respect to scores. The outline on the graph indicates the maximum and minimum obtained scores. The two ends of the rectangle represent the upper and lower quartiles while the black dot indicates the median. The continuous assessment scores of these schools 2, 3, 4, 5, 6, 9, 10, 11, 12, 14, 17, 19, 21, 24, and 32 were widely spread with coefficient of variation ranging from 13.6% - 27.2%. The graph also shows that the continuous assessment scores of these schools 1, 7, 8, 12, 13, 14, 15, 16, 18, 24, 33, 34 and 36 were moderately spread while coefficient of variation ranging from 6.2% - 11.4%. Also, the continuous assessment scores of these schools 22, 25, 26, 27, 28, 29, 30, 31 and 35 were clustered with coefficient of variation ranging from 3.1% - 5.9%. Hence, for Mathematics, the continuous

assessment, were heterogeneous with homogeneous subgroups.

Discussion

The findings revealed that continuous assessment scores in some schools were widely spread, some were moderately spread and some were cluster (closely spread). That is, continuous assessment scores in selected school subjects were heterogeneous with homogeneous subgroups. This might be due to teachers and schools characteristics. The first homogeneous subgroup consists of schools which their continuous assessment scores were widely spread which indicated that in such schools there were brilliant students, average students and poor students. This seems to reflect the actual ability of these students. In these schools, teachers seem to assess their students with sincerity to reflect the way they stand academically. This study support



Dietal et al (1991) that maintained that good assessment information provides accurate estimates of students' abilities. The study negates the view of Abbas (2000) who stated that continuous assessment scores may not be the true reflection of students' ability.

The result showed that the second homogeneous subgroup includes schools in which their continuous assessment scores were moderately spread. In this category of schools, there were only brilliant and average students. This implies that a little upgrading (adjustment) might have been done to the students' continuous assessment scores by the teachers. The reason may be because they are parents or otherwise and they do not want their students (children) to fail. Continuous assessment scores in schools such do not represent the true reflection of the students' abilities.

The third homogeneous subgroup consists of those schools whose continuous assessment scores were cluster (closely spread). It is an indication that only brilliant students were in this category of schools. There is no doubt that there might be some brilliant students in these schools but how is it possible not to have some average or poor students in these schools. These schools scores are questionable. Therefore, continuous assessment scores in these schools seem not to be adequately reflected the students' true ability. In this case, the scores might have been inflated whether with the knowledge of the subject teachers or otherwise to the advantage of the students. This study is in line with the finding of Nwabuisi (1987) which revealed that teachers awarded false marks to pupils and some awarded mark to their pupils even on test never administered. Juola in Ayodele (2010) stated that inflated grades provide inaccurate feedback which may point to intellectual dishonesty. To harmonize these scores, Burger (1998) suggested

that there should be an acceptable performance standard that should not be viewed as minimum competency but should set high and achievable expectation for students and not be low that everyone meets or exceeds it.

Recommendations

Based on the findings, the following recommendations were made:

- (1) Teachers should be trained to improve on the way to generate continuous assessment scores.
- (2) Efforts should be intensified by the teachers to generate valid and reliable continuous assessment scores.
- (3) Teachers should meet to construct continuous assessment instruments for uniformity on the schools bases.
- (4) Teachers should be sensitized on the need for faithful award of Continuous assessment scores.

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Coefficients of Variation (C V) of continuous assessment and Ranks of schools

Schools	English Lang.		Mathematics	
	C V %	Rank	C V %	Rank
1.	8.8	16	10.0	20
2	17.0	28	15.7	25
3.	29.8	35	24.1	35
4.	15.0	24	17.2	27
5.	19.0	29	16.6	26
6.	21.3	33	17.2	27
7.	12.0	20	11.4	21
8.	9.8	18	9.7	18
9.	16.9	27	17.7	30
10.	20.7	30	18.8	31
11.	24.1	32	21.1	34
12.	29.9	36	27.2	36
13.	6.6	11	6.2	10
14.	20.9	31	17.4	29
15.	8.5	15	9.0	16
16.	5.4	6	8.5	15
17.	13.2	23	13.6	23
18.	10.1	19	9.5	17
19.	13.1	22	8.0	14
20.	7.8	14	7.1	12
21.	24.8	34	19.3	32
22.	5.6	8	4.0	3
23.	15.0	24	15.1	24
24.	9.4	17	9.7	18
25.	3.9	2	3.7	2
26.	5.7	9	5.8	8
27.	6.7	13	5.9	9
28.	5.3	4	5.5	6
29.	2.9	1	3.1	1
30.	5.7	9	5.4	5
31.	5.4	6	5.6	7
32.	16.4	26	19.6	33
33.	6.6	11	7.4	13
34.	5.3	4	6.2	10
35.	5.2	3	4.6	4
36.	12.5	21	12.6	12
Grand	16.5		15.4	