

QUALITY ASSURANCE IN TEACHER-MADE-TESTS FOR SUSTAINABLE DEVELOPMENT, IN EBONYI STATE NIGERIA.

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Abstract

The study was carried out to determine the nature of Teacher—made-test in junior secondary schools, with a view to finding out ways of enhancing quality assurance in its construction and administration. The study adopted a survey research design. A total of 353 respondents made up of junior secondary school teachers, who are heads of departments were used for study. Three research questions and one hypothesis guided the study. The instrument for data collection titled “Quality Assurance in Teacher-made-test (QATMT) questionnaire was developed by the researcher It went through validity and reliability tests, with a reliability co-efficient of 0.81 obtained from the application of Cronbach Alpha procedure. Data were analyzed statistically using the simple mean and standard deviation. A mean value of 2.5 was regarded accepted, and items with mean values of below 2.5 were not accepted. T-test of 0.5 significance level was used to test the hypothesis. Results shows that some junior secondary school teachers exhibit low competence level by not following the correct procedures in the construction of teacher-made-tests. The results also show some hindrance to effective preparation of teacher-made-test which include lack of competent skills, much workload on teachers, and much time consumption in test preparation etc. In view of this results, some recommendations were made, among which are that government should provide relevant standardized test materials with specific guides on test preparation for different subjects. Also legislation should be put in place to use correct test procedure.

Keywords: Test, measurement, quality assurance and sustainable development.

Introduction

The concept of test generally, could be viewed in relation to instrument or systematic procedure for measuring a sample of behavior (Gronlund and Robert 1990), It is a device for measurement, used to find the quality, value, or composition of a process or product (Herbor Peters, 1990); or a standardized procedures used to elicit and measure samples of human behaviour (Kazdim, 2000), or a standard set for questions to be answered, which could be regarded as an instrument for evaluating learning in school (Anene and Ndubuisi, 2003) or a systematic and purposeful quantification of learning outcome (Nwagu 2003). Also as a very vital tools, used in gathering valuable data in which educational decisions are based (Nworgu, 2003) .

Gronlund and Robert (1990), believe that test is an instrument, which has systematic procedure for construction and administration, which is capable of revealing an aspect of behavior which is designed to measure. On the other hand, Harbor Peters (1999), contends that, for a test to be constructed and administered to students, they must be first of all, exposed to learning experiences. Stressing that it is designed to test the level of competency on an individual in a particular lesson unit.

Kazdim (2000) defines test as a procedure used to evaluate human ability, personality characteristics and adjustment and mental health, which involves intelligence, aptitudes, skills, attitudes, interests, and detecting signs and symptoms of psychological and neurological disorders.

As standardized and repeatable procedures used to elicit and measure samples of human behaviour. Kazdim further states that, because test involve measurement, it has procedure for coding, scoring, or quantifying the behaviour that is elicited so that it could be compared with normative data systematically collected on similar samples.

Elaborating their view points, Anene and Ndubuisi (2003), emphasis that, since test could be regarded as a standard set for question to be answered, it is administered to the testee to determine the extent he has attained previous identified objectives, which may relate to cognitive attainment, attitude, interest, personality, social adjustment, or psychomotor skills.

Classification of test based on quality. Test could be classified under this criterion, as: Teacher-made-tests and standard tests (Nkemakolam, 2003).

For the purpose of this study, teacher-made test was discussed. Teacher-made-tests according to Nwagu (2003), comprise all those tests constructed by the classroom teacher individually or in groups for the assessment of their pupils achievement in specific school subjects. He further states that the tests assume various forms such as, quizzes, mid-term tests, end-of-term/year examination etc. In his own view, Singh (2008), states that teacher-made-tests are constructed by the teacher for the purpose of measuring the achievements of his own pupils or students. He further says that, teacher-made-tests are also called classroom tests and are not usually standardized. From the foregoing therefore, it could be said that teacher-made-tests are the tests constructed, administered, and scored by the classroom teacher or by the committee of several teachers in the school or schools.

Generally, teacher-made-tests are of two types the essay and the objective tests. Such tests assume various names such as quizzes, mid-term or semester tests, end of terms or final semester tests, end of-year or promotion examinations. The teacher uses the tests according to its nature and purpose to achieve his/her instructional objectives. To achieve the instructional objectives or ascertain the extent it has been achieved depends to a large extent on the knowledge of the teacher in developing what I may call “instructional objective-based-tests”. This is matching questions side by side with the objectives of lesson to be taught or already taught. The reason is to achieve the objectives or aims of the lesson or subject being taught; others are:

- To diagnose the learning difficulties of students, their strengths and weakness in performance.
- For students to be able to replicate translate and apply what they learnt into personal life.
- Also for the teacher to get feedback from students, as to improve instructions.

The above objectives may be difficult to achieve, without making provisions for quality assurance in teacher-made-tests. This is because according to Mkpa and Izuagba (2003) the teacher is the implementer of educational policies and curricular in the classroom. Therefore, the way and manner he handles the classroom tests should be examined to ensure quality assurance.

Several research results show that, teacher-made-tests vary from teacher to teacher and from school to school in terms of quality content. This is why Nwagu (2008) opines that, the variations in label and forms of teacher-made-tests lead to lack of similarity with respect to length, timing, scoring pattern, item types and item quality. The above situations, therefore call for quality assurance in teacher-made-tests which will in turn enhance sustainable development in education.

Quality assurance according to WIKIPEDIA (wiki Educator, www.edstoolkit.org, retrieved on 28/03/2013), refers to systematic activities implemented in a quality system, so that quality requirement for a product or services would be fulfilled. It further states that, it is the systematic measurement, comparison with a standard, monitoring of process and an associated feedback loop that confers error prevention.

In the context of this study, quality assurance can be referred to, as systematic construction, administration and scoring of teacher-made-tests in a quality system;

using competent teachers, appropriate test item types, right item facility/difficulty, length of time and scoring pattern among other things. So that at the end, high educational standard will be achieved, which will engender sustainable development.

Concept of Sustainable Development

The issue of sustainable development is a global concern. According to World Commission on Environment and development (1987:4). Sustainable development is the development that meets the needs of the present without compromising the ability of future generation to meet their own needs. It further states that, the basic aim of education system for sustainable development is, “education for a new man”, a man of sustainable type of thinking. It therefore implies that quality assurance in teacher-made-tests would consequently promote competencies among teachers, and critical thinking among students, and the knowledge, skills, attitudes and values necessary to shape a sustainable future.

To attain sustainable development in our educational system, what happens in the classroom as regards different evaluation processes, in teacher-made-tests require quality assurance.

Statement of Problems

Nworgu in Ikoro (2012) asserts that continuous assessment, which is more of teacher-made-tests is fraught with many problems, including that of comparability of standards. He further observes that the way and manner tests are developed and administered in various schools, present problems in scoring and grading of achievements in the various school subjects. The above situations imply that, there are fundamental procedural faults on teacher-made-tests, starting with the poor knowledge of most teacher in developing reliable teacher-made-tests, administration pattern, to grading and interpretation of results.

Therefore, the above scenario requires that urgent attention should be given to quality assurance in the teacher-made-tests.

Purpose of the Study

The Purpose of the study include to:

1. Find out the extent junior secondary school teachers use/follow correct procedure in constructing teacher-made-tests.
2. Identify some hindrances to effective construction of teacher-made-tests.
3. Ascertain how quality assurance could be enhanced in teacher-made-tests.

Research questions

The following research questions guided the study.

1. To what extent does the junior secondary school teachers use/follow the correct procedure in constructing teacher-made-tests.
2. What are the hindrances associated with effective construction of teacher-made-tests.
3. How can the quality assurance in the construction of teacher-made-tests be enhanced.

The hypothesis was tested at 0.05 significant level.

H₀₁: There is no significant difference in the mean rating of male and female secondary school teachers (heads of departments) on measures for enhancing quality assurance in constructing teacher-made-tests.

Methodology

The study adopted descriptive survey design. The population for the study comprised all the junior secondary school teacher in the 208 junior secondary school of Ebonyi State (Ebonyi State Ministry of Education, 2012). The simple random sampling techniques and 20% was used to select sixty junior secondary schools from the list. Also all the head of departments were selected from the sixty schools to form the sample, bringing the sample size to three hundred and fifty three (353) with 181 males and 172 females.

The instrument for data collection was a thirty six (36) item researcher constructed questionnaire, titled Quality Assurance in Teacher-Made-Tests in Ebonyi State Junior Secondary school (QATESJSS). The instrument was validated by experts. The 36-item questionnaire was administered to fifty Junior Secondary school teachers in schools not used for the study. The questionnaire had a stability index of 0.82, using Cronbach Alpha Co-efficient. The instrument was designed and weighted on a four point Likert-scale of very great extent (4) Great extent (3) Little extent (2), very little extent (1), for research question one.

Research question 2 and 3 have strongly agree (4) agree (3) disagree (2) and strongly disagree (1). The mean and standard deviation were used to analyzed the data, where upon items (skills) with mean value of 2.5 were accepted as skills used by the teachers, those below 2.5 were not accepted. The choice of 2.5 is because it is the average of the sum of 4, 3, 2 and 1. The hypothesis was tested using t-test of significance of 0.05 level.

Results

The results of the study are presented below:

Table 1: Mean rating on the extent Junior Secondary school teachers use correct procedure in constructing teacher-made-tests.

S/N	ITEM STATEMENTS	MEAN	SD	REMARK
1	List out of the subject matter covered for the term before setting tests on them.	3.04	1.05	Great extent (A)
2	Outline the instructional objectives, the test items will be based.	2.61	0.76	Great extent (A)
3	Identify appropriate intellectual level for each objectives.	2.21	1.60	Little extent (NA)
4	Construct test items using test blue-print.	1.81	1.64	Very little extent (NA)
5	Assign weights to the topics and objective levels.	1.80	0.43	Very little extent (NA)
6	Compute the correct number of items for each and all the cells in the blue-print.	1.79	0.32	Very little extent (NA)
7	Write the tests correctly based on the blue-print.	2.23	1.62	Little extent (NA)
8	Put the tests to validity and reliability before administering it.	1.00	1.19	Very little extent (NA)
9	Review and scrutinize test items to select required number.	1.05	1.02	Very little extent (NA)
10	Ensure that the items set cover cognitive domain	2.51	0.94	Great extent (A)
11	Ensure that the items set cover affective domain.	2.31	2.26	Little extent (NA)
12	Ensure that the items set cover psychomotor domain.	2.28	1.60	Little extent (NA)
13	Set a test that is not very high or very low.	2.66	0.77	Great extent (A)
14	Consider age, and level of students when setting tests.	1.96	0.76	Very little extent (NA)
15	Arrange test items from simple to complex ones	3.80	0.67	Very great extent (NA)
16	Trial-test the items by administering twice to a group.	2.24	1.66	Little extent (NA)
17	Ensure item analysis of the test items.	2.28	1.60	Little extent (NA)
18	Produce model answers with correct marking scheme	2.31	2.26	Little extent (NA)
	Grand Mean	2.36 -	(NA)	
	Grand standard deviation	-	2.27	

The data presented in table 1 above, showed that the item mean scores of teachers range from 1.00 to 3.80. Items 1, 2, 10, 13, and 15 have mean scores and standard deviation of 3.04 and 1.05, 2.61 and 0.76, 2.51 and 0.94, 2.66 and 0.77, then 3.80 and 0.67 respectively. These items are accepted as some of the correct procedures teacher use in constructing teacher-made-tests because their mean scores are above 2.5. while items 3, 4, 5, 6, 7, 8, 9, 11, 12, 14, 16, 17, and 18 have mean scores and standard deviation of 2.21 and 1.60, 1.81 and 1.64, 1.80 and 0.43, 1.79 and 0.32, 2.23 and 1.62, 1.00 and 1.19, 1.05 and 1.02, 2.31 and 2.26, 2.28 and 1.60, 1.96 and 0.76, 2.24 and 1.66, 2.28 and 1.60, then 2.31 and 2.26 respectively. This items are not accepted because their mean scores are below 2.5.

In conclusion, the grand mean of 2.36 with standard deviation of 2.27 reveals that the junior secondary school teachers in Ebonyi state do not make use of correct procedure in preparing teacher-made-tests.

Table 2: Mean response of junior secondary school teachers on the hindrances associated with effective construction of teacher-made-tests.

S/N	ITEM STATEMENTS	MEAN	SD	REMARK
1	Lack of competent skills among teachers.	3.75	0.76	Strongly agree
2	Its strenuous nature and much time consuming.	3.01	1.02	Strongly agree
3	Much work load in assessing the students in all subjects.	2.50	0.97	Agree
4	Death of standardize test books for a guide.	2.61	0.76	Agree
5	Lack or few test development experts in schools.	2.52	0.95	Agree
6	Inadequate training and retraining of teachers on classroom test development.	2.66	0.77	Agree
7	Lack of supervision and moderation of teacher-made-tests.	3.76	0.75	Strongly agree
8	Lack of teacher's commitment and not taking tests preparation very serious.	3.81	0.68	Strongly agree
9	Lack of validated questions bank for use by the teachers.	3.03	0.01	Strongly agree
10	Lack of periodic work shops or seminar for teachers on teacher-made-tests.	2.66	0.82	Agree
Grand Mean		2.72	-	(Accepted)
Grand standard deviation			1.06	

The data in table 2, revealed an over-whelming agreement on the hindrances associated with effective construction of teacher-made-tests. Hence the mean scores ranged from 2.50 to 3.76.

Table 3: Mean response of teachers on measures to enhance quality assurance in teacher-made-tests in Junior Secondary schools.

S/N	ITEM STATEMENTS	MEAN	SD	REMARK
	Putting in place legislation, structure and materials in order to enhance quality assurance such as:			
1	Enforcing the use of test blue print.	3.87	0.65	Strongly Agree
2	Sending all the teachers in batches to workshops and seminars.	3.81	0.68	Strongly Agree
3	Provision of standard books on tests construction for teachers.	3.72	0.72	Strongly Agree
4	Strict supervision and monitoring of teachers on the use of correct procedure in test preparation.	3.84	0.65	Strongly Agree
5	Setting up tests experts as committee to scrutinize teacher-made-tests periodically.	3.66	0.82	Strongly Agree
6	Teachers who falsify tests results should be punished.	3.00	1.00	Strongly Agree
7	More qualified teachers should be recruited to reduce much work load and increase time for test preparation.	3.12	1.08	Strongly Agree
8	Only qualified teachers exposed to tests preparation training should set mid-term, and end-of-term examination questions.	3.15	1.06	Strongly Agree
9	Government should set up quality Assurance committee on tests preparation for different subject areas.	3.91	0.54	Strongly Agree
	Grand Mean	3.34	-	(Accepted)
	Grand Standard Deviation		1.02	

The data presented in table 3 above, showed that all the items were overwhelmingly agreed upon as some of the viable measures to enhance quality assurance in teacher-made-tests.

Table 4: t-test of significance between male and female Junior Secondary school teachers responses on measures for enhancing quality assurance in teacher-made-tests.

Categories	No of cases	Mean (X)	SD	Df	t-cal	t-tab	Decision
Male teachers	JS 181	3.84	1.25	351	1.56	1.96	Not Significant
Female teachers	JS 172	3.36	1.53				

P > 0.05 Accepted Ho₁.

In table 4 above, t-calculated which is 1.56 is less than the t-table value of 1.96. Therefore, the null hypothesis is upheld showing that the opinion of male and female Junior Secondary School teachers are not significantly different on the measures for enhancing quality assurance in teacher-made-tests.

Discussion

The findings of the study as indicated in table 1, revealed that Junior Secondary School teachers do not use the correct procedure in constructing teacher-made-tests. This is evident in their grand mean response score of 2.36. This implies that they carry out the exercise any how they like. This finding is in agreement with the report of Nworgu in Ikoro (2012), that teacher-made-tests are fraught with many problems. That the way and manner tests are developed present problems in scoring and grading etc. This situation, if not checked would spelt doom for sustainable educational development of this country. This is because according to Mkpa and Izuagba (2003) the teacher is the implementer of educational policies and curricular in the classroom.

In table 2, the data showed that they are hindrances associated with effective construction of teachers-made-tests. They include, lack of competent skills. Much time consumption and workload, dearth of standardize tests guide, inadequate training and retraining of teachers on teacher-made-tests and so on. Also these reports are in agreement with some research finding, among which is that teachers lack the competence of developing a test blue print (Udo and Bassey, 2011). On the other hand, the result in table 3, revealed an over whelming agreement of Junior Secondary school teachers on the suggested measures to enhance quality assurance in teacher-made-tests. Such measures includes, putting in place legislation, structure and materials also, sending all the teachers in batches to workshop and seminars, provision of standard test books or guide, strict supervision and monitoring of classroom tests etc. As a matter of urgency, regular training on the correct procedure for teacher-made-tests or classroom tests preparation should be scaled up as listed in table 1, above.

From the data in table 4, it was observed that there was no significant difference in the responses of male and female Junior Secondary School teachers on the measures for enhancing quality assurance in teacher-made-tests. The implications of this is that the Junior Secondary school teachers support the introduction of quality assurance as a means towards quality teacher-made-tests.

Conclusion

The study focused on quality assurance in teacher-made-tests of Junior Secondary School teachers in Ebonyi State. From the findings most of the teachers do not use the correct procedure in preparing their teacher-made-tests. Also they are lots of

hindrances associated with effective construction of the test. Equally, all the teachers agree on the measures suggested for the enhancement of quality assurance in teacher-made-tests.

Recommendation

Based on the findings of this study, it is recommended that:

1. Government at all levels should put in place legislation, structure and ensure compliance to the use of correct procedure in the preparation of teacher-made-tests.
2. Government should also set up quality assurance committee at state, Local Government and school levels to monitor tests preparation for different subject areas.
3. There should be bi-annual seminar and workshops for teacher on the proper procedure for test construction, administration, scoring and grading.
4. Government at all levels should provide standard test book or test guide for teachers use.
5. Since test construction demands thoroughness and carefulness, only those teachers exposed to test construction training should be allowed to set mid-term and end of term/year examination.

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