



AN INVESTIGATION INTO TEACHERS COMPLIANCE WITH THE BEST ASSESSMENT PRACTICES IN THE CROSS RIVER CENTRAL SENATORIAL DISTRICT

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ABSTRACT

The Cross River Central Senatorial District is the designated study area situated in South-South Nigeria. The study was designed to investigate the degree to which primary school teachers in Cross River Central Senatorial district, apply themselves to best assessment practices. Five hundred (500) teacher-participants in the 2009 NTI training workshops were used as the sample. The researcher-made “Teacher Best Assessment Practice Questionnaire” (TBAPQ), was developed and comprised a 28-item-point Likert questionnaire (.80 Cronbach alpha reliability coefficient). This was used for testing the null hypothesis at .05 level of significance. Population t-test analysis of data revealed that the observed level of best assessment practices exhibited by the basic education teachers was not significantly higher than expected, except in assessment administration and scoring. Assessment practices were significantly poor in construction, interpretation, communication, analysis and trial-testing. Based on these findings, the implications for educational accountability were highlighted.

Keywords: Educational Development, Teachers, Teaching.

1. INTRODUCTION

The current education reforms in Nigeria and indeed across the globe (Kolo, 2007) are expected to affect every facet of education, including assessment. Experts have recommended innovative assessment strategies and a shift from assessment of learning to assessment for learning. But what is the status of assessment practices of the teachers in Cross River State, Nigeria? Assessment is one of the concepts that have been highly misunderstood and misused in communication. In its literal sense, assessment refers to the determination of the amount of a substance in a particular thing (Hornby, 1995). By this view, educational assessment is the amount of learning an individual acquires after exposure to instruction or learning experience. In the professional education context however, the assessment is the interpretation of the results of measurement mostly based on internal standards, to ascertain desired behavioural changes observed (Joshua, 2005).

According to the Federal Republic of Nigeria – FRN (2004), education is an instrument par excellence for effecting national development, assessment is an integral part of teaching, and no education system can rise above the quality of its teachers. These statements mean that

assessment is a critical tool for national development. Data gathered on students' learning outcomes could facilitate diagnosis of systemic and environmental problems, redress of curriculum inputs for better results, appraisal of instructional attainments for student placement, selection, promotion as well as guidance and counselling.

Based on Charles Spearman's classical test theory (CTT) of 1904, an observed score (X) in every learning situation could be decomposed into the true score (T) and an error score (E). This phenomenon is symbolically expressed as $X = T + E$, and simply indicates that achievement scores and other measures of learning outcomes are not error-free. This theory relates to this work in the sense that it prescribes the adoption of assessment practices in learning that minimize or eliminate errors so that observed scores will approximate true abilities. This is significant because attainment of this goal in classroom learning ensures credibility, confidence, reliability and validity of educational measurement and assessment scores.

Related to the theory of the true score, is the theory of accountability which evolved through its exponents Ralph Nader of the United States of America (USA) and Robert Lower of Great Britain in 1862 at a time that people were trying to find what actually constitutes the moral responsibility of corporations to the society. Applied to the school system, accountability is the theory which postulates that the school worker (teaching and non-teaching staff) must be held liable for the 'outputs' and students' learning outcomes. That is, it is the responsibility of the teacher to perform his duties in a way that guarantees the attainment of the desired organizational goals. Infact, the theory stipulates by extension the "no work, no pay" maxim, as well as rewards based on level of worker's achievement (Harris, 1991; Joshua, 1998).

History traces the origin of educational accountability to the incidence where citizens of Athens forced Socrates to swallow hemlock because they felt his influence on the youth was not in consonance with the values and perceived needs of their parents (Bassey, 2006). Proper accountability ensures that the tax payer, the society, the government and the learner get value for their hard-earned money spent on education.

The value of education however, does not just lie in passing internal and external examinations but rather hinges on the individual's functionalism, the degree to which he is useful to himself and to the entire society. A faulty and inadequate assessment system cannot guarantee functionalism and utility. Rather, it is like a torn, porous filter which permits freely both the filtrate and the residue to pass through it (Bassey & Idaka, 2008).

Assessment in Nigerian primary schools started as summative type at the onset of formal education. It was a one-shot assessment type called the "Almighty December" (or June) marking the end of the session. Owing to the advantage of repeated measures for greater accuracy in measurement, the continuous assessment (CA) was introduced as a better option. But sooner or later, the continuous assessment was highly abused and so it failed to serve the intended purpose.

The need for change in the educational assessment system therefore came as a result of some challenges against the continuous assessment mode. According to Umar (2006), the desire to obtain high scores on achievement tests tended to make some education stakeholders misconstrue the purpose of education to be mere passing of examinations and thereby acting in ways that condition the education system to be examination driven and prone to malpractice. Consequently, the continuous assessment was reduced to "continuous or repeated testing" p. iv. Other challenges of continuous assessment included professional incompetence of most teachers in test and measurement (Hassan, 1989; Jatto, 1996), increased teacher workload, general misconception and focus of assessment of the cognitive domain to the neglect of the other domains, the issue of teacher integrity and standards across schools (Umoinyang, Asim, Akwa & Bassey, 2004; Jatto, 1996; Joshua, 2005).

Current educational initiatives under the Universal Basic and Secondary Education (UBASE), as well as the Education for All (EFA) now make assessment reform a critical imperative across the globe. Experts in educational measurement have in response to this need advocated assessment innovations including a change in school-based assessment (SBA) from ‘assessment of learning’ to ‘assessment for learning’. Whereas the former assesses for the sake of it, the latter uses assessment scores to identify inadequacies in the measuring instrument, teaching, learning, language and method of instruction and student attitudes (Joshua, 2009). Furthermore, professionals have also called for the adoption of the minimum competency testing (MCT) as a strategy in testing which ensures that a certain minimum level of competency is attained by learners before they are adjudged to have learnt a particular content or skill. A third school of thought (Bassey & Idaka, 2008) prescribed the adoption of the integrated Domain Benchmarking Assessment (IDBA), which views that minimum attainment levels should be set in all of cognitive, affective and psychomotor domains as prerequisite for judging a learner’s achievement. That is, for instance, until a learner scores at least 60 percent minimum in each domain, he should not be certified successful.

For the learner to perform well, however, the teacher inputs must be adequate. That is, for maximum pupil performance, the teacher must teach well and assess properly. In practice however, it is observed that assessment practices of some teachers are grossly poor (Erhinyodaywe, 2007). Currently in Nigeria, some teachers still exhibit traditional assessment practices, which the National Teachers’ Institute – NTI (2006) enumerated to include assessing pupils with the sole aim of preparing them for examinations, emphasizing high scores without regards to understanding, focusing on paper and pencil test, memorization of facts and steps to a process and neglecting “higher mental tasks” involving thinking and application skills. Attendant effects of these poor assessment practices are many and include the fact that emphasis on outcome of final external examinations leads teachers to concentrate on trying to cover the syllabus irrespective of students’ understanding. Pupils in such schools pass out half-baked and unable to read and write. Non focus on formative assessment by teacher leads to non-correction of pupils’ errors/misconceptions. Also, the pupils find it difficult to plan for their learning in the absence of prompt assessment feedback.

Research evidence tends to point to teacher inadequacy and failure in the subject matter of assessment as observation reveals pervasive poor assessment practices among teachers (Erhin yo davwe, 2007). Wide application of shoddy assessment practices of teachers is largely due to unqualified and non-professional teachers in the field (Odili & Ajuar, 1995), teacher pre-occupied with numerous activities outside teaching for self sustenance, even though some teachers exhibit positive attitudes to assessment (Lambert, 1989) and irrationality in grading practices in terms of score interpretation (Karim, 1993; Cox, 1993).

According to Stanley and Hopkins (1972) criteria for judging classroom assessment practices should include selection of assessment techniques (test construction), administration and scoring, interpretation of assessment and communication of assessment. Selection of assessment techniques must be done based on standard principles depending on the objectives of the assessment. Administration and scoring must also be done based on standards to avoid assessment fraud and ensure validity. The interpretation of the results of the assessment as well as communication, is also expected to be done in a fair manner to provide reliable feedback to education stakeholders. Based on the above, one begins to wonder what the status of best assessment practices is in the Cross River Central Zone of Nigeria.

The purpose of the study is to determine whether the primary school teachers apply themselves well enough to best assessment practices. Specifically, one may ask what is the status of the teachers’ best assessment practices in the assessment components of construction, administration, scoring, interpretation, communication, analysis and trial-testing?

This study will provide basic education *teachers* with vital information on the quality of their assessments, so that they can sustain or improve on the level. That is, this study will improve teachers' assessment effectiveness. Empirical data on the level of best assessment practices of teachers will equip *school managers* with evidence to support teacher retraining and other capacity building efforts as a mirror that will assist *supervisors* of education to identify the components of assessment to address in their professional role-play.

To the *parents*, this study will help them to view assessment scores with caution and rationality, knowing that they are prone to errors and do not really guarantee a graduate's job effectiveness. That is, further efforts may be required to match school grades with social expectations.

1.1 HYPOTHESIS

The level of best assessment practices exhibited by the basic education teachers is not significantly higher than expected.

2. METHODOLOGY

The survey research design was adopted in this study, involving collection of data as 'presently' constituted for the purpose of description of a phenomenon, without a conscious effort at controlling or manipulating the independent variables. The choice of this design is predicated on the fact that the researcher planned to collect sample data from the population with intention to describe the status of the teachers' best assessment practices in the present.

The research area is the Cross River Central Senatorial district is located midway between the Cross River South and the Northern Senatorial zones, and is bounded by Ogoja in the north, Biase local government area in the south, the Republic of Cameroun in the east and Ebonyi State in the West. Cross River Central is a very educationally active zone with 100 pre-primary schools, 325 primary schools and 192 post primary schools, with 2,361 teachers in the public primary schools. The state has 18 local government areas and six (6) of these are in the central zone (Abi, Yakurr, Ikom, Etung, Boki and Obubra).

The population of the study comprises the four thousand nine hundred and twenty (4920) basic education teachers (Federal Republic of Nigeria, 2006) in Cross River Central Senatorial district. This figure is made up of 2152 male and 2768 female teachers.

The 512 basic education teachers chosen by the Cross River State Government (Nigeria) to participate in the 2009 NTI teacher retraining and capacity building programme were used as the sample for the study (later filtered to 500). That is, the researcher used a 'catch audience' for his sample. In pursuance of the Millennium Development Goals (MDG), the state ministry of education in partnership with the Universal Basic Education (UBE) commission have been organizing teacher retraining activities in Nigeria as a yearly event. This exercise took place simultaneously in Calabar, Akamkpa, Ugep, Ikom and Ogoja on 9th – 13th November, 2009. Other characteristics of the sampled teachers are shown in Table I.

Table I – Characteristics of sampled teachers (N = 500)

Gender		Socio-Economic Status (SES)		Qualification		Experience
Male	204 (40.8%)	High	122 (24.4%)	Below NCE	122 (24.4%)	N = 500
Female	296 (59.2%)	Moderate	218 (43.6%)	NCE	363 (72.6%)	X = 13.348
		Low	160 (32.0%)	Degree	15 (3.0%)	S = 5.511

Table I shows that most of the teacher subjects were female, of low socio-economic status holding the NCE qualification, with mean teaching experience of 13.348 years.

2.1 DATA COLLECTION AND ANALYSIS

The instrument was administered by the researcher to the teachers during their workshop break period. He was however aided by four (4) trained assistants who were co-facilitators during the workshop. By this process, all the 512 participants completed the instruments and returned. This was 100% return rate. However, twelve (12) of them were poorly completed and were therefore discarded. Only 500 questionnaires (98%) of them were used.

A 28-item six-point Likert type instrument titled “Teacher Best Assessment Practice Questionnaire” (TBAPQ) was designed by the researcher and used for data collection. Section A of the instrument required the respondent to provide personal, demographic information like name of school, town, local government area of the school, teacher gender, socio-economic status (high, moderate, low), highest educational qualification (below NCE, NCE, Degree) and teaching experience (metric).

Section B of TBAPQ was designed to measure teachers’ application of best assessment practices under the sub-variables: assessment construction, administration, scoring, interpretation, communication, analysis and trial testing. Each sub-variable had four (4) items and response mode was ticking/checking the extent to which the teacher performed each act based on scores ranging from 5 (maximum) to 0 (minimum). Response options ranged from ‘very often’ to ‘never’. Typical items included: determines purpose of test before item setting, prepares table of specification, includes items measuring cognitive, affecting and psychomotor domains, check sitting arrangement in administration of assessment, conduct search on examinees prior to test taking, scoring is done anonymously, a scoring key is followed, interpretation of assessment is based on standard principles, grade interpretation key is included in assessment report sheet, marked scripts are returned to learners, correction of work is done as a follow-up, results are published promptly, item analysis is done, person by item matrix is prepared, item difficulty is computed, try-out of instrument is done, and item critique is ensured.

The researcher-made instrument (TBAPQ) was given to two experts of Educational Measurement at the University of Calabar to validate. Face validity was established by them through their independent comments certifying the instrument adequate for the intended purpose. TBAPQ was trial-tested on thirty (30) UBE teachers of three private schools in Calabar Municipality, which is outside the research area. Reliability (Cronbach) coefficients were obtained as 0.88, 0.81, 0.76, 0.86, 0.77, 0.69 and 0.85 for assessment construction, administration, scoring, interpretation components respectively. Mean reliability index is therefore 0.82, these values are considered to be high enough and so the instrument could be confidently used.

The hypothesis was tested using the population t-test, at 0.05 level of significance. For the population t-test, the product of an item mean (mid mark) and the number of items (4) in each sub-variable was taken to be the reference or expected mean and this constituted the basis for comparison. For instance, $(0+1+2+3+4+5) \div 6 = 2.5$ (item mean) multiplied by 4 items gave 10 as the reference mean for assessment construction. This was the case for each of the other sub-components (70 as reference mean for the whole instrument). In the analysis, the data for teaching experience, the mean experience (in years) and the standard deviation were used to break the experience into three levels (groups) using $x_i < X - ISD$ (low), $x_i = X \pm ISD$ (moderate), and $x_i > X + ISD$ (high), where x_i , X and SD represent scores, mean and standard deviation respectively.

3. RESULTS

The result of the analysis shows that hypothesis 1 is accepted meaning that the level of best assessment practices exhibited by the basic education teachers is not significantly higher than the reference (expected) mean. The results are shown in Table 2.

Table 2: Population t-test analysis of best assessment practices observed and expected (N=500)

Variables	Sample (observed) mean	Sample SD	Reference (expected) mean	df	t-value	Sig.
Construction	7.40	3.21	10.00	499	-18.18*	.00
Administration	12.75	3.84	10.00	499	16.08*	.00
Scoring	13.02	3.88	10.00	499	17.45*	.00
Interpretation	6.55	2.40	10.00	499	-32.24*	.00
Communication	8.24	2.97	10.00	499	-13.33*	.00
Analysis	6.10	2.53	10.00	499	-34.51*	.00
Trial testing	5.21	2.32	10.00	499	-46.50*	.00
All Assessment Practices	59.27	7.10	70.00	499	-33.84*	.00

* P<.05 df. 499, t-critical = 1.648 and 1.965 for the one and two-tailed tests respectively.

From the above table, best assessment practices are significantly poor for assessment construction, interpretation, communication, analysis and trial testing, and significantly higher than expected for administration and scoring. This is because of the significant negative t-values (for construction and others) and positive t-values (for administration and scoring). Teachers' application of best assessment practices is far below expectation, except in the aspects of administration and scoring of the assessment.

4. DISCUSSIONS

The finding that teachers' application of best assessment practices is far below expectation except in the administration and scoring of the assessment is not too shocking because most of the sampled teachers (97%) in the basic education level are by qualification below the Bachelors degree. They therefore lack research and assessment competence. Assessment is a technical subject matter that requires caution and good practice to achieve.

Best assessment practices serve multiple objectives and benefit a number of stakeholder (Love & Cooper, 2004). According to Kellough and Kellough (1999), the purposes of assessment include: improvement of student learning, identification of students' strengths and weaknesses, review of assessment and improvement of teaching strategies, review and improvement of the effects of curriculum programmes, improvement of teaching effectiveness, provision of administrative data to facilitate decision-making and communication with stakeholders.

In spite of the utility of assessment, the effort becomes futile and wasteful if not done to standards. Interaction with teachers and a visit to basic institutions of learning reveal that indeed most teachers are assessment handicapped, carrying out assessment by impulse. Validity and reliability are the sine-qua-non in assessment. For quality assurance and accreditation in school learning (Pond, 2002), assessment for learning and true score must be the focus. Standard procedures involving the use of test construction principles, table of specification, careful

administration and scoring, testing the test through item analysis, trial testing and other validation strategies must be employed for assessing credibility and maximum confidence.

Assessment devoid of best practices is likened to a torn filter with holes capable of allowing the residue and filtrate to pass through. It is incapable of separating the “wheat from the chaff” (Bassey & Idaka, 2008). This could explain why sometimes a pupil’s demonstrable performance falls short of his grade (class).

5. CONCLUSION

Further intervention in teacher education in the area of teacher assessment practices is urgently required to make classroom assessment credible, reliable and valid. The implications for educational accountability are far reaching.

For meaningful accountability, teachers must be seen not only to assess, but must implement ‘assessment for learning’, where assessment is not just an end in itself but a means to an end. Scores generated from assessment are a reflection of both teachers’ inputs and index of learners’ mastery of subject matter content. This means that the teacher needs to use such scores to determine the extent to which educational objectives have been achieved, the effectiveness of his teaching methods, communication, the quality of instructional processes and learning environment.

Distortions, noise and other nuisance variables in the learning environment can impinge on students’ learning. The teacher should therefore use pupils’ scores as indicators of the need for further teacher intervention to clarify misconceptions and clear the path to meaningful learning. It is also true that the onus of learning residues with the learner. Thus in this wise, scores can also represent the learner’s efforts and degree of acquisition of knowledge. Yet the teacher is still needed to function in this context as a facilitator, to quicken the learning process. Poor assessment practices among teachers calls for greater supervision of instruction and assessment.

Above all, achievement scores do not have their intended meaning unless they are valid, reliable and credible. Spurious scores, inflated assessments and politically motivated scores which was based on sentiments, as well as grades infested by sampling and measurement errors are highly deceptive and should be avoided. This means that teacher integrity in assessment is a fundamental factor.

As a matter of urgency, teacher retraining programmes should be organized to address the problem of poor assessment practices among teachers. The use of standardized tests, where available may help reduce abuses in assessment, and this option could be explored. Technology in assessment in the form of use of computers in assessment construction, item banking and construct, validation, as well internet assessment reporting and communication constitute modern assessment practices of import.

REFERENCES

- Bassey, B. A. (2006). Students’ evaluation of teaching effectiveness of academic staff in University of Calabar. An unpublished Ph.D Dissertation, Faculty of Education, University of Calabar.
- Bassey, S. W. & Idaka, I. E. (2008). Reforming assessment practice in Nigerian Schools: The option of integrated domain benchmarking. *Journal of Childhood and Primary Education*, 4(1), 50 – 59.
- Cox, S (1993). Students learning to teach. Online article retrieved January 10, 2010 from <http://research.edu.uea-ac.uk/suecox>
- Erhinyodavwe, J. I. (2007). Learning activities and assessment techniques in pre-primary schools in Warri South Local Government Area of Delta State, Nigeria. *Journal of Childhood and Primary Education*, 3 (1), 87 – 95.

- Federal Republic of Nigeria – FRN (2004). *National Policy on Education*. Lagos: NERDC.
- Federal Republic of Nigeria (2006). *Statistical abstracts*. Abuja: National bureau of statistics.
- Harris, T. F. (1991). Corporate social responsibility: A dialogue. *The Freeman*, September. A publication of the foundation for economic education. Retrieved January 10, 2010 from <http://ca.geocities.com.busa2100/miltonfriedmandiscuss01.html>
- Hasan, T. (1987). Perceived causes of examination malpractice in Nigeria. *Osu Journal of Education Studies*, 1, 94 – 105.
- Hornby, A. S. (1995). *Oxford advanced learner's dictionary*. New York: Oxford University Press.
- Jatto, Y. A. (1996). The continuous assessment system in Nigeria: The problems and challenges ahead. In G.A. Badmus & P. I. Odor (Eds), *Challenges of managing educational assessment in Nigeria*. Kaduna: ATMAN.
- Joshua, M. T. (1998). Teacher characteristics, attitudinal variables and teacher evaluation in Akwa Ibom State. Unpublished Ph.D Dissertation, Faculty of Education; University of Calabar.
- Joshua, M. T. (2005). *Fundamentals of tests and measurement in education*. Calabar: University of Calabar Press.
- Joshua, M. T. (2009). Innovations and issues in assessment and examination in Nigeria. Unpublished lead paper at the 6th National Conference of Nigerian Primary and Teacher Education Association (NPTEA) held July 27th – 31st at Afaha Nsit College of Education, Akwa Ibom State, Nigeria.
- Karim, S. S. A. (1993). Traditional healers and AIDS in Southwestern Nigeria: implications for disease prevention. *Health Education Researcher*, 10 (3), 379 – 384.
- Kellough, R. D. & Kellough, N. G. (1999). *Secondary School Teaching: A guide to methods and resources; planning for competence*. Upper Saddle River, New Jersey Prentice Hall.
- Kola, I. A. (2007). Reforms in the Nigerian education system. The way forward. E. D. Ozoji, B. G. Dala, Y. Mugu & A. Y. Mustapha (Eds). *Nigerian education system: which way forward? Jos: Deka Nigeria*.
- Love, T. & Cooper, T. (2004). Designing online information systems for portfolio-based assessment: Design criteria and heuristics. *Journal of Information Technology Education*, 3, 65 – 81. Available at <http://jite.org/documents/vol3/v3p065-081-127pdf>.
- National Teachers' Institute – NTI (2006). *Manual for the retraining of primary school teacher/; school based assessment*. Kaduna: NTI.
- Odili, G. & Ajuar P. (1995). *Basic educational measurement and evaluation*. Warri: COEWA publishers.
- Pond, W. K. (2002). Distributed education in the 21st Century: implications for quality assurance. *Online Journal of Distance Learning Administration*, 5(2), 1 – 8. Retrieved October 12, 2009 from <http://www.westge.ed/vdistance/ojdl/summer52/pond52.html>
- Stanley, J. C. & Hopkins, J. (1972). An academic model for educating the Mathematically talented. *Gifted Child Quarterly*, 35(1), 36 – 42. Retrieved January 10, 2010 from <http://gcq.sagepub.com/cgl/content/abstract/35/1/36>
- Umar, A. (2006). Preface in *School-based assessment*. Manual for the retraining of primary school teachers. Kaduna: NTI.
- Umoinyang, I. E., Asim, A. E., Akwa, A. M. & Basse, S. W. (2004). *Principles and techniques of educational assessment and evaluation*. Calabar: Helimo Associates.
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