

A DISCOURSE ON THE INNOVATIVE ASSESSMENT TECHNIQUES FOR VALID ASSESSMENT IN EDUCATIONAL INSTITUTIONS IN NIGERIA

IDRIS UMAR SARKIN BAUCHI, ABDULLAHI USMAN LAKA & SARATU BAWA

Department Of Science Education, School Of Science And Technology Education, Federal University Of Technology Minna, Niger State

Email: haumar2008@gmail.com, saratu.bawa@futminna.edu.ng, aulaka7@gmail.com

PhoneNo: +2348065378781, +2349030408121, +2348035094972

Abstract

Educational assessment has been regarded as part and parcel of teaching and learning right from the time formal education came to existence. There will never be attainment of objectives and goals in education in the absence of assessment in education. This paper reviewed some innovative assessment techniques that can be used to ensure valid assessment of teaching and learning activities in the institution of learning. It also discussed efficacy of Computer-based test as an innovative technique and finally rounded-off with some examples of CATs developed by which contains techniques used in the assessment of classroom instruction. The paper concluded that if these assessment techniques are patronized and judiciously utilized by teachers, there will be improvement in the quality of teaching and learning in schools and assessment will become more valid which by extension will improve the quality of education.

Keywords: Educational Assessment, Innovative Assessment Techniques, Computer-Based Test, ICT, Validity, CATs.

Introduction

Teaching and learning can never be successful in absence of assessment. Which usually gives a hint on how far is the achievement of learning objectives, and at large, achievement of educational goals. Assessment is the bedrock of education because test scores usually derived are used to measure learners' academic strengths and weaknesses. Also societies solely depend on the students' performance to weigh the quality of their respective educational systems and level of goals' attainment (Ojerinde, 2009).

For several decades, assessment in education has been analogue or manual in nature until recently when Information and Communication Technologies (ICTs) were incorporated. The analogue system was not without some problems ranging from inefficiency, insecurity, delay in results production and so on. For example, in Nigeria, one of the most outstanding problem in educational assessment was the production of valid test scores and grades in examinations (Aworanti, 2016). But with the integration and diffusion of ICTs in education, there was evidence of positive reforms in methodologies as the traditional methods of information delivery of information has changed, thereby, offering up-to-date learning experience for both teachers and students (Ololube, Ibogu & Ossai, 2007). ICT is defined as as electronic tools for storing and retrieval of information (Matthew, Danjuma Joro & Manasseh, 2015). They are powerful tools that if used correctly, are capable of expanding access to education to workplace and educational quality (assessment inclusive).

Integration of ICT in to education is the use of ICT tools such as computers, internet facilities, mobile technologies, projectors to mention but a few, in teaching and learning and research

activities in the institutions. There is rapid growth of the use of computers in learning institutions particularly in Nigeria nowadays where the trend is relatively new compared to advanced countries like United State of America, China, Japan and others. However, computer literacy is fast increasing in the country by the day.

E-assessment or Computer-Based Test are often used interchangeably to connote the use of computers and other electronic media for assessment. It is also a new development in Nigeria educational system with few examination bodies like Joint Admission and Matriculation Board (JAMB), few Universities embarking on it. The major motive of e-assessment in the country apart from crave to becoming ICT compliant nation was to curb examination malpractices which engulfed the nation for years. Some of the lapses accorded old and analogue system of assessment in educational institutions in Nigeria include delay in producing results of examinations, examination malpractices (Adegbeja, Fakomogbon & Daramola,2012), which contributed tremendously in eroding the nation's quality of education over time.

None the less, regardless, regardless of mode of assessment or testing, the most significant psychometric property to be protected in a test is validity. Validity is defined as the degree to which evidences and theories support the interpretation of test scores entailed by proposed use of test (AERA, APA & NCME, 1999). It was also defined as the ability of a test to measure what it is purported for (Kolawale,2010). Thus, any invalid test or assessment is nothing than harm in education and at worst, may lead to invalid decision making concerning test results.

Therefore, this calls for the need to have valid and effective assessment techniques in the institutions of learning as to work smoothly towards achieving educational objectives in the country which will result to national development.

Computer-based Test as an Innovative assessment in Nigeria

As mentioned earlier, e-assessment or computer-based testing is a new development in Nigeria which is even at the moment, undergoing gradual acceptance and implementation in the educational system. In Nigeria, the CBT as an innovation started very recently with few number Universities that were able to partially incorporate it in to their daily assessments or examinations. these includes Federal University of Technology Minna, University of Ilorin, Covenant University Ota, Nigerian Open University of Nigeria (NOUN) and the host of others. (Olawale & Shafii,2018)

Strengths of CBT as a Mode of Assessment

Computer-Based Test as an innovative mode of assessment has been accorded several potentials among which are discussed as follows:

(i) Objectivity, speed and accuracy

One of the most outstanding glory of CBT is accuracy. Computers are highly objective in operations which helps in giving accurate results and operate in a greater speed (Abioye, 2016).This enable institutions of learning and examination bodies to assess large population of test takers within short period of time as against the traditional paper examination that is time consuming and cumbersome.

(ii) Contusive Environment

Computers as electronic machines are usually kept in a conditioned environment for effectiveness and protection. Most of the computer centers have good furniture, air conditioners, light which make the environment conducive for examination. This

benefits testees as it motivates them during assessment. Recently, Statistics revealed that candidates who took part in CBT in 2014 obtained better results compared to the PPT formats (Abioye,2016)

(iii) Cost and Time saving in Large scale examination

Another advantage accorded CBT is cost saving, that is to say it enables assessment of large population of students wishing short period of time using computers which administer and score the test instantly. This eliminate the costs of manual administration, scoring and reporting and also saves time compared to traditional practices. Chua (2012) conducted a comparative study of computer and paper tests, whose results indicated that the CBT mode is more reliable in terms of internal and external validity. Also from the result, the CBT significantly reduced testing time and developed stronger self-efficacy, intrinsic and social testing motivation in the participants.

With the few facts about the advantages of CBT in educational assessment, it is evident that implementing CBT in the institutions of learning will pave way effective and quality assessment as opposed to the traditional system.

Innovative Assessment Techniques (IATs)

Another dimension worthy of giving attention as relates to valid assessment is the innovative assessment techniques. They are strategies in assessment that provide instant information about what learners understand and what they don't (Lee, 2008). One of the unique features of these techniques is that they motivate learners to most especially if consistently integrated in to teaching and learning processes. Though IATs are no used for grading, rather they provide chances for improving learning.

Some of these techniques as analyzed by Lee (2008) are discussed as follows:

- (i) **Analysis of Learners Work:** - In this technique, learners are given tasks like assignments, home works, tests, quizzes as usual, after the submission, teachers carefully go through the responses to identify learners' current knowledge, skills and attitudes concerning the subject matter. They also identify strengths and weaknesses of the learners so that proactive measures could be taken. Thus, the issue in this technique is not to allocate grades as it is in the current continues assessment practice, but it also demands seriousness from the teachers as to patiently gather information about learners in the class.
- (ii) **3-way Summaries:** - this another astonishing IAT, it involves learners using different modes of attention and thinking, working in a group or isolation. the teacher ask question and instruct the learner to write three different summaries of their responses, for example 10-15, 30-50 and 75-100 words length of summaries at a time. This enriches the learners with abilities or experiences to communicate ideas in minimal wordings.
- (iii) **Think-Pair-Share:** - In this technique, teacher asks the learners individually. After coming up with their responses, they are instructed stay in pairs and exchange ideas contained in their responses, and eventually, the teacher circum-navigate the pairs and listens to their discussions. Finally, the teacher shares responses of the pairs to the class. This allows learners to have deep in-sight of subject matters. it also improves learners' self-esteem, self-concept and problem solving skills most especially by the time they heard their views being shared to the entire class.
- (iv) **Classroom Polls:** - This has to do with allowing learners to cast their ideas or opinions on certain issues or topics in the class unanimously. This enables learners characterized

to be introverts to express their opinions easily as they find it difficult to speak out. In this method, devices like mobile phones can be used in the class to gather learners' opinions at a time which can be sent to the teachers' phone directly which is speedy and confidential. Much will be gotten from learners using this technique.

- (v) **3-2-1 Countdown:** - A very good technique which implies that whenever a learner gains knowledge of something relevant, they tend to utilize it immediately. Thus, teacher gives out some cards demanding information about three things, which are (i) 3- things you didn't know before (ii) 2-things that surprises you about a topic and (iii) 1- thing that you want to start doing with what was learned. This help boosts comprehension and synthetic abilities in learners.
- (vi) **strategic Questioning:** - Questioning method is one of the basic learning strategy advocated by an old philosopher, "Socrates". It can be applied to individuals or groups. It involves asking learners higher-order questions to appraise their level of understanding issues or concepts. For example, words like how? Why? Are being used to stimulate in-depth thought among learners which enhances their creative and logical thinking abilities.
- (vii) **Around robin charts:** - It is another yielding technique, and it involves grouping learners in to four or five as a group. Each group is given a chart and a marker, and the throws an open-ended (free response) question to the class and expect responses using charts. The chart are later circulated among learners for discussions, and finally the teacher generally discusses the submissions of the groups.

All these centrally concentrate on learners, and they give much information on how and what they learned. Our discussion will now move to the dimension of teachers themselves, in order words, assessment of teaching or instruction.

Assessment of Teaching in the Classroom

Apart from knowing the level of understanding amongst learners, there is also every need to check or assess the quality of instruction may it in the classroom, laboratory, lecture hall or any learning environment. To achieve this, some classroom assessment techniques could also be adopted such as Classroom Assessment Techniques (CATs) developed by Cross and Angelo, (1993) as cited in Faculty Innovation Centre (2018). CATs consists of activities to provide feedback in the course of instruction which will enable teachers assess the quality of teaching generally by pin-pointing strengths and weaknesses instantly for modification and improvement.

CATs has several advantages for both teachers and students. To the teachers, among others it provides frequent feedback that can be reacted to immediately, provides information of what students learn and showcase areas of misconceptions. On the other hand, it hints the students on what they understand and what they do not, help increase their ability to think critically and above all, foster attitudes that value understanding and long-term retention of learned materials.

Examples of CATS

There are several types of CATs which can be used for assessment of the classroom instruction. In this paper, we discussed only three simple ones that can yield good results in the assessment as follows: -

- (a) **Written Reflection:** - This is an assessment technique that sometimes referred to as "Minute Papers" or "Muddiest Point". It involves asking some logical questions to the

learners which response will provide true reflection of what they learned, the questions are: -

- i. What are the most important thing you learned today?
- ii. What important question remained unanswered?
- iii. What was the muddiest point in?

After the collation of the responses, it will guide the teacher on the level of understanding of the learners and as well the technique will enhance learners ability to reflect on the major facts of subject matters.

- (b) **Start-Stop-Continue:** - This is also another revealing and promising technique of assessment. In the technique, teacher asks learners some questions a teaching is going on that will instantly improve quality of teaching. The questions are:-
- i. List one or two things that I, the instructor(teacher) am currently doing that are not working (things that I should STOP doing)
 - ii. List one or two things that I am currently doing that I should CONTINUE)
 - iii. List one or two things that I am not currently doing that will be beneficial to me to START doing.

After the assessment, teacher will be guided on his or her strengths and weaknesses as regards teaching and better ways to improve. Consequently, quality of teaching will be enhanced with time provided the technique is practiced by the teachers.

- (c) **Suggestion Box:** - This can inform of small wooden, plastic or steel box that can be placed in classes or halls during instruction or be hanged in front of staffrooms or offices after instruction. Teacher asks the students to drop any suggestions, observations, queries and dissatisfaction as regards teaching so that steps can be taken for improvement. This is done unanimously to avoid any threat to students, and the teacher is expected to whole-heartedly accept all observations. This will go a long way to improve the expertise of teachers and solve several problems of teaching and learning, and above all enhance the quality.

Conclusion

Innovation is crucial in every aspect of life as the world is dynamic in nature. It is apparent from this discourse that if techniques of assessment mentioned can be utilized in teaching and learning at all levels of education a lot of problems of poor teaching and performance will solved. In a broader perspective, quality will be enhanced in educational assessment not only in Nigeria but the world entirely.

Recommendations

from the contents so far highlighted, we recommend that:-

- Teachers should implement the formative assessment techniques interchangeably in teaching as to benefit from their potentials
- CBT or e-Assessment should be given much attention to curb examination malpractices and to improve quality and validity of assessments in the institutions of learning.
- To improve quality of teaching, CATs should be adopted by instructors in classroom instruction

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