

ALTERNATIVE ASSESSMENT: EMERGING TRENDS OF CLASSROOM ASSESSMENT IN DIGITAL ERA

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ABSTRACT

The paper focused on the use of performance assessment for assessing learners in terms of using acquired knowledge and skills in creative and innovative ways. The benefits and major issues in the use of performance assessment were highlighted. The paper also discussed the process and guideline for the use of performance assessment as tools for teaching and learning. The principles that emanates from two theories of learning supporting the use of performance assessment were highlighted as well. The implications of the use of performance assessment were drawn, and some suggestions also made.

Keywords: performance assessment, alternative assessment, constructivism, learning-by-doing, connectivism

INTRODUCTION

An increasing trend is to assess students with activities that more closely reflect reality as alternatives to traditional paper-and pencil assessments. In some circles, the term alternative assessment has been used to describe the type of assessment which emphasizes higher-order thinking skills in terms of holistic performance involving all domains of learning. Teachers use three types of formal assessment in teaching: paper-and-pencil assessment, performance assessment, and portfolio assessments. Paper-and-pencil assessments come in form of objective items and essay types. In most cases they are designed to test students' ability to remember and reproduce knowledge. This view of assessment is still in vogue in most places, but then educators are beginning to accept that there is more to schooling than for learners to be remembering and reproducing fixed body of knowledge in isolation – schools should prepare students for life after school; hence some educators are advocating for assessment that involves the use of real tasks that can trigger higher- levels of thinking through performance (Santrock, 2008; Killen, 2010).

The best ways of getting learners to exhibit what they can do with the knowledge, skills, and experience they have acquired is through performance – based assessment or authentic work. But then, in planning authentic work, teachers need to understand the attributes of performance-based assessment and, the edge it has over paper-and-pencil tests. They should also understand what should be in place and, the process of using performance assessment for students to be able to produce clear evidence of their initiatives in concrete terms.

Educational Assessment

Parkay and Stanford (2010) posit that educational assessment focuses on learning, teaching, and outcomes. It provides information for improving learning and teaching. Borich (2011) defines educational assessment as an interactive process between students and teachers that inform the teachers about students' learning progress; without this, teachers cannot make effective decision on students' learning. Such information is used by the teacher to make changes in the learning environment, and is shared with students to assist them in improving their learning and study habits.

However, Ukwuije (2012:3) posits that literature is replete with many definitions of educational assessment and, as such gives a synthesis of these definitions showing that 'educational assessment is a process of documenting, usually in measurable terms, knowledge, skills, attitude, belief, practices or

generally what behavior a learner does or does not have, acquire or develop before, during, and at the end of instruction, or a course of study'. This definition indicates that assessment is indispensable in teaching and learning situation; that it is process oriented, and, that it takes two forms: formative and summative. The key issue of formative assessment according to research evidences is that it is ongoing, diagnostic, and it provides constructive feedback to student as the work is going on. In contrast, the issues of summative assessment are: final grades, to gauge quality; product – oriented, and are judgmental, to arrive at an overall grade/ score. This indicates that formative assessment is not for grading but for improving teaching and learning. To McKeachie and Svinicki (2006), learning is more important than grading; providing feedback is more important than assigning grades. Research evidences suggest that assessments facilitate learning and identify misunderstandings that help teachers teach better.

Kauchak and Eggen (2011) listed four misconceptions about assessment: determining students' grades is the primary purpose of assessment; assessment occurs after a unit of study; assessment focuses on students' understanding and skills; and assessments are primarily paper-and-pencil tests. These misconceptions may have negative impact on teaching and learning, and this may account for the reason why students are deeply involved in examination malpractices in Nigeria. Grades are important part of assessment but are not the sole reason for assessing students. Assessment is a significant tool for teaching and learning; experts in assessment coined the term 'assessment for learning' as a way of emphasizing the place of assessment in the teaching and learning process. Feedback from assessment facilitates learning for improved performance (McKeachie and Svinicki, 2006).

Alternative Assessment and Learning Theories

McMillan (2001), states that alternative assessment requires the active construction of meaning rather than the passive regurgitation of isolated facts. It could also be said to be a form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge, skills, and experiences they have. This form of assessment focuses on construction of meaning and, it is in tandem with constructivists' view of learning expanded by connectivist learning theory. In constructivist mode, Woolfolk (1993:485) asserts that students actively construct their own knowledge with the input from the outside world, and from their own experiences. Liaw (2004) and Santrock (2008) distinguish between cognitive and social constructivism as two representative types of constructivism. Cognitive constructivism believes learners construct knowledge individually based on prior experience and new information. Knowledge according to this view is the result of accurate internalization and reconstruction of external reality.

On the other hand, social constructivists argue that knowledge is the outcome of collaborative construction in a socio-cultural context. This indicates that learning is fostered through interaction processes of information sharing, negotiation, and discussion (Driscoll, 2005). This is to say that cognitive and social learning constructivist theories give strong support to alternative assessment. Cognitive constructivist acknowledges the individuality of learners with the view that they can use acquired knowledge and skills to produce innovative product/service, perform a skill, and conduct experiment, among other authentic tasks; in addition, problem situations can be designed and the process of solving the problem can be assessed. Such assessment provides constructive feedback during the course of production/demonstration; and such feedbacks give ideas of the value of what is being done. This not only motivates but also rebrands the product/service before the final submission. For social constructivist it is collaboration and team work and this is what really obtains in real life setting. This belief indicates that group assessment provides opportunities for students to share information and work co-operatively (Jonassen, 1991; Finch, 2002). In all, Mueller (2011) is of the view that authentic assessment capture constructivist nature of learning. According to him, 'we need to construct our own meaning of the world, using information we have gather and were taught and our experiences with the world'. This implies that authentic assessment is beyond the ability of students' to call and reproduce facts; it gives opportunity to engage in demonstrating that they have accurately construct meaning about what they have been taught.

Siemen (2004) presents the theory of connectivism which is driven by the understanding that one can

learn so much through interaction and connectivity. This represents a digital age concept based on the use of the internet for collaboration through team effort across the globe. Social network provides opportunity for connecting people in all works of life around the world. The starting point of connectivism is the individual with a network which feeds others into the network and then continues to provide learning to individuals in circle. This suggests that learning through the extension of a personal network is the epitome of connectivism. Each participant assesses the feedback of others and adds his/her own contribution as well. These two broad learning theories most often used, can help students and teachers design learning tasks and problem situations for students to use acquired knowledge, skills, and experiences to produce creative and works. This could result to creating educational film, documentaries, video, interactive radio programmes and games, among many others. This is where using what is learnt comes in to play in terms of performance (Berret, 2006).

The current definition of educational technology has its focus on using technological processes and tools to 'facilitate learning and to improve performance (Januszewski and Molenda, 2008). For performance assessment this suggests using technological processes and tools to show students actual performances by their ability to carry-out projects, present oral speech, conduct experiments, and exhibit portfolios, as the case may be. This is enforced by designing tasks and activities that requires real or simulated problems situation that will allow students to demonstrate their knowledge and skills. Prensky (2001) calls on teachers to create a series of graded tasks into which skills to be learned are embedded in form of learning games and movies.

Kauchak and Eggen (2011), states that there is a need to change the ways and manner of assessment in information explosive society. In the industrial age, the focus of education was on basic skills but for digital age, information is power and the skills required from an educated person are those of being able to access, gather, process, and interpret data, According to Obanya (2009), the successful worker must be a problem-solver and decision-maker, capable of gathering, processing and using information for making meaning out of life. Doing this continuously translates to lifelong learning in terms of learning, relearning, and unlearning using technological processes and tools; this becomes assessment through performance.

Performance Assessment

Taylor and Nolen (2005), define performance assessment as assessment of authentic work in terms of: live performance or the product of students work. This may be in form of completing a project or demonstrating other skills outside the context of tests to showcase real life events. However, Santrock (2008) states that this mode of assessment is not new in some disciplines such as: art, music, and physical education, but that the major change is its recent focus on traditional "academic areas." According to Borich (2011:416) 'some skills – particularly those involving independent judgment, critical thinking, and decision making – are best assessed by asking learners to show what they can do;' hence the use of authentic or performance assessment to assess real performance of tasks relevant to life. Both terms have been used interchangeably as alternatives to paper-and pencils tests.

Parkay and Stanford (2010) state that performance assessment requires students to use higher- level thinking skills to perform create or solve real-life problems. This could be in form of individual or group work which may involve taking active part in a project, videotaped demonstration of skills, live performance or participation in community-based activities. In schools, students conduct experiments to solve problems; students write stories with serious themes; they take part in sports; they undergo interviews; they give presentations. According to Sadker and Sadker (2003) some prefer this type of authentic assessment in which students' actual performance is evaluated, rather than their responses to a paper-and-pencil exam. An authentic assessment demands that students synthesize what they have learned in various areas to complete a challenging, often creative, task. Accomplishing something real is motivating for students and perhaps more relevant than responses to paper-and- pencil exam. Students' accomplishments are real opportunities for teachers to assess what students can do with acquired knowledge and skills.

Arguments favouring the use of performance assessments make two related but distinct claims. Performance assessments are expected, first, to provide better measurement and, second, to improve teaching and learning. Although measurement devices have advantages and disadvantages,

performance measures have the potential for increased validity because the performance tasks are themselves demonstrations of important learning goals rather than paper-and-pencil responses (Resnick and Resnick, 1992).

Features of Performance Assessment

The key issue of performance assessment is on ‘doing’ open-ended activities, based on observation and judgment. The performance assessment tasks usually have the following features: have more than one correct approach, are thought provoking, not simply requiring recall of memorized facts, requires decision making, rather than just rote memorization, develop thinking in a variety of ways, leads to other problems to be solved, raise other questions (Finch,2002).

In the highly influential synthesis of research, ‘How People Learn’, some authors indicate that an emphasis on ‘learning with understanding’ is the hallmark of the new science of learning (Branford, Brown, and Cocking, 2000). They summarized research on the benefit of new technologies for enhancing students’ learning, stressing that technologies do not guarantee effective learning, but instead, make it easier to create environment for learning. Technologies allow representation of data in new ways, hence (Barret 2006) posits that information and communication technologies (ICTs) support different functions of assessment in terms of:

- flexibility –no time, place or task;
- assessment as a tool for learning;
- responsibility of students for their learning;
- product and process assessment;
- variety of assessment instruments;
- authenticity of assessment; and
- Students as active participants in the assessment process.

To say that authentic assessment reflects both the process and the product (Jonassen, 1991). The assessment on the process examines how the students completes the learning activities or tasks, work together to complete the final product, or construct knowledge collaboratively by using ICT. Methods used for the process assessment include writing online reflective journals, peer assessment or e-portfolios. The assessment on the product aims at investigating the quality of the final product. Usually there are two forms of assessment: ICT-based and non-ICT based. The ICT-based assessment includes using ICT tools as in the use of PowerPoint presentation, the use of multimedia authoring tool, use of web-based resources, and communication tools. The non-ICT-based assessment involves presentation in form of writing a paper or journals as the case may be.

According to Mueller (2011), authentic assessment in contrast to paper-and-pencil tests, encourages the integration of teaching, learning, and assessment; whereas, in paper-and-pencil assessment, teaching and learning are often separated from assessment. In authentic assessment mode, the same authentic task used to measure the students’ ability to apply the knowledge and skills is used as a vehicle for student learning. Thus, Mueller (2011) distinguished between traditional mode of assessment (paper-and-pencil) and authentic assessment as follows:

Traditional	Authentic
Selecting a response	Performing a task
Contrived	Real life
Recall/recognize	Construction/application
Teacher-structured	Student-structure
Indirect evidence	Direct evidence

Guidelines for Performance Assessment

Airasian (2005) gives four guidelines for using performance assessment: establish a clear purpose; identify observable criteria, provide an appropriate setting, and judging or scoring the performance. In another instance, Taylor and Nolen (2005) outline the critical elements of performance-based assessment:

- Authenticity of the work;
- Developmental appropriateness of performance;
- Clear directions to students;
- Appropriate scoring rules;
- Circles of feedback and revisions.

These features of performance assessment require imagination, planning, practice, revision, and patience on the part of teachers and students.

To Santrock (2008), the purpose of performance assessment can be diverse: to assign grades, to evaluate students' progress, to recognize the important steps in the performance, to generate product to be included in learning portfolios, to provide concrete examples to students' work. All these indicate that every performance assessment has the advantage of being able to provide clear evidence of students' achievement. It is useful for a wide range of classroom activities across all subject areas as excellent methods of addressing knowledge and skills at the higher levels of Bloom's taxonomy.

Newby, Stepich, Lehman, and Russell (2006) and Mueller (2011) state that using performance assessment is process-oriented involving three steps: define performance targets and task, create a rubric, and build students' portfolios. Killen (2010:367) summarized the process of using performance assessment in authentic situation as follows:

- Identify the outcome you want learners to achieve;
- For each outcome or for groups of outcomes, develop a realistic task that learner could be asked to perform to demonstrate what they have achieved;
- Select appropriate criteria to describe learner performance on the task;
- For each criterion, develop a description of what it would look like if learners were demonstrating high levels of achievement;
- Using the same criteria that were used to describe high-level performance, develop descriptions of at least two 'lower' levels of performance;
- Use the same descriptions of the different levels of performance to construct a rubric that can be used to assess learners' performance;
- Provide learners with the assessment criteria in advance and require them to develop responses to realistic situations.

This process suggest that performance assessment involves direct measurement of what learners should know, it emphasizes higher-order thinking skills, judgment and collaboration, and it encourages learners to become actively involved in the learning process.

Rich and Cady (2006) are in favour of using scoring rubric for rating performance. Kubiszyn and Borich (2010), state that there are three categories of rubrics: checklist, rating scale, and holistic scoring; and that each category has advantages, disadvantages, and appropriate applications for classroom. Taylor and Nolen (2005) posit that scoring rubrics should show the range in the quality of the performance, showing different levels of quality described and differentiated from one another.

Implications of Performance Assessment

Performance assessment has been used interchangeably with "authentic assessment" and "alternative assessment". In information-based society the trend is on the use of knowledge and skills in innovative and creative ways. This has led to increasing interest in performance-based assessment. This requires authentic tasks in real life situation and, requires performance-based assessment, which demands that actual student performance be assessed through developing a product via a process. In all cases, performance-based assessment has led to the use of variety of alternative ways of assessing students' progress as compared to paper-and-pencil tests. This poses challenges for teachers to design instructions that are tasks oriented. Such tasks should be holistic, involving social skills, high levels metacognitive skills, and communication skills, and accommodating different learning styles; all operating within the acceptable culture of the environment. With proper understanding of performance assessment in terms of its nature, features, guidelines/process, rubrics and its categories, teacher should be able to use performance assessment as a tool for meaningful and realistic assessment.

CONCLUSION

The focus of the 21st century education is for students to be able to use the abundant information occasioned by ICTs to become more creative and innovative. To this end, the school is the fertile ground to begin through learning to do; this refers to the acquisition of practical skills, aptitude for teamwork, initiative and, the readiness to take risks. It involves the competence of putting what students have learned into practical use. When this happens, learning to do enables students to turn their knowledge into effective innovation. Based on this, this paper has made a striking point, that teachers should align their teaching and assessment to the application of knowledge in concrete terms. This means producing students who will be conscious of the fact that they should not acquire knowledge and skills for acquisition sake, but should use such in innovative and creative ways; in terms of production of product/services. This could in turn sharpen their thoughts towards production of goods and services for general or specific use; this is what entrepreneurship is all about.

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