

STRENGTHENING TEACHERS CLASSROOM ASSESSMENT PRACTICES FOR INNOVATIVE LEARNING AND 21ST CENTURY SKILLS

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Abstract

Information gathering on students' performance is a means to assist them to make progress in their educational career and have sound knowledge of concepts and standards. Every activity that goes on between the teacher and the student in the classroom setting is regarded as an assessment which aims at determining the extent to which teaching-learning process had taken place. Strengthening classroom assessments can raise students overall achievement and can be used to diagnose low-achieving students. Twenty-first century skills requires teachers to be innovative and have holistic approach that did not focus only what learners have learnt but also how it was learnt. It is expected that data collected by assessing students will not only be useful for measuring learners' progress only but also for improving their own instructional practice. The current practice of assessment lacks the involvement of learners as a result of teachers' low ability to carry out objective assessment. In the twenty-first century, it is inevitable for teachers to make learning easier and more effective for students. This demands building teachers' capacity in best practices in classroom assessment is inevitable. Effective use of any of the suggested approaches in this paper is capable of strengthening teachers' classroom assessment practices for innovative learning and sustainable development.

Keywords: Assessment, Strengthening classroom assessment practice, Innovative learning, Sustainable development

Introduction

Research in recent times has shown paradigm shift from traditional instructional practices of the 20th century that requires learners to work on individual basis using examinations that require learners to regurgitate learned concepts and proffer solutions based on individual school subjects. This has changed to a more robust assessment in which what is taught, how it was learnt and how long it is being evaluated form part of personalized learning. Research, has shown that assessment embedded in students learning has a strong effect on student teaching especially for low ability students (Black

& William, 1998). Therefore, working towards achieving this feat requires the combination of formative and summative assessments of students' ability which will enable them move up on the academic ladder.

Data collection on learners is an innovative approach aimed at helping students to discover themselves and become acquainted with important concepts and standards about the effectiveness of the teaching-learning process. This includes all the events that transpired where learning is taking place to provide information for the modification and improvement of teaching learning activities. According to Stiroh, (2003), educators should replicate their method of determining what a learner learnt through a more holistic quantitative approach that will justify what learners had learnt and assess how effective is the teacher's methods.

When discussing assessment for learning, the whole idea is to ensure that the teaching methodologies are capable of giving credence to the teaching learning process in the classroom environment without compromising standards thus showing the extent of formative tests and quizzes contribute to current best practices. To this end, it is essential that teachers are exposed to current best practices so as to have capacity for determining the progression of their learners in the school system. As a matter of fact, building teachers' capacity for a better assessment procedure in the 21st century requires complete overhauling of teachers traditional method of assessment and injecting new methods of testing learners for teaching effectiveness.

Traditional method of assessment uses the paper-pencil approach for assessing learners either at the end of the term or during lessons but the 21st century skills require a more rigorous approach. Practitioners must begin to engage a more robust strategy of assessment for the positive and lasting effect it has on teaching the learning process (Black & Wiliam, 1998; Popham, 2008) as well as the value it adds to the system. The prevailing theory of assessment has not yielded the desired result as it has failed to measure the cognitive, affective and psychomotor domains of the learner concurrently hence the need to strengthen assessment practices of teachers if the knowledge-building environment needed for the global trend will be achieved.

Knowledge-building environments combines' multifaceted systems that resulted in the transfer of ideas that are not monopolized by individuals and which can be shared among people for the overall building of the society and for future development. Therefore mentoring learners to be active participants in knowledge construction is as important as laying strong foundation for a virile school reformation for sustainable community knowledge development. The absence of such knowledge in the school system makes it practically difficult to determine the veracity of learners' ingenuity that can be explored as a tool for progressive development (Wertsch, 1998). Creating enabling environments for shared opportunities will not only allow learning from each other but will generate a sense of constructive criticism that leads to ownership and sustainability that are sufficient for innovation for 21st century skills.

Discussing the world of knowledge, self-control and perfect understanding of oneself is essential and cannot be separated from what innovative ideas contain. These are regarded as soft skills and hard skills. Researchers are now focusing on those skills that will prepare students for the world of work and make them worthy citizens that will develop their societies.

The world is changing rapidly from commerce and engineering and this had led to new demands in teaching and learning that prepare learners for the workforce. Among these are the needs of society and the skills available to make flexibility and adaptability possible. The present age is in high demand of dexterity in digital literacy and communication skills. In view of the above, there is a need for a paradigm shift of assessment strategy which should be based on:

- the quality of assessment procedure by the teacher that will beam its light on teaching and learning to enable adjustments in his teaching method;
- strategies that will allow teachers to assess the three domains of knowledge concurrently and
- an approach that will get learners involved in the assessment procedure to develop the sense of ownership and a learning ground for more effective contributions.

Challenges of Assessment

It is obvious that assessment is faced with challenges but they are not insurmountable if concerted efforts of teachers and practitioners are directed at it. Some of the challenges facing assessment are the use of inconsistent standards in determining learners' success at organized and unorganized learning environments and the choice of appropriate form in such environment. The challenge has contributed to the failures experienced in the school are being adopted by different teachers leading to discrepancies in outcome. Valid instrument should therefore be developed and teachers trained appropriately to handle the instruments to avoid differences in results. Another challenge is inability to differentiate between digital literacy skills, career and life. Teachers consistently find it difficult to differentiate between knowing how to use computer and making it a career. Knowledge about the use of digital skills should be separated from professional training as a means of livelihood. Low capacity and skills of teachers to design document and implement 21st century assessment framework constitutes another challenge (Quellmalz & Haertel, 2008). This challenge can be conquered if teachers are exposed to frequent training that can build their capacity and make them versatile in the design, documentation and implementation of the 21st century assessment framework. The fourth challenge is, incoherent assessment needs for usability across all the strata of learning. There is need for consensus about what constitutes innovative approach that will guarantee achievement so as to avoid compromise on students' performance.

Eliminating the Bottlenecks

To eliminate bottlenecks, the following approaches will be of immense importance.

Assessment should be planned in a way that will give credible information about what the learner learnt to enable the teacher to structure his assessment procedure for corrective purposes. Data collected from such a strategy will avail the teachers the opportunity to know if they are on the right path or not. This form of information assist teachers to know the efficacy of their teaching plan adequately ahead for subsequent lessons aimed at developing learners critical thinking, and providing useful information for improve classroom climate (Ross, 2006). As teachers become familiar with individual differences in their students, the skills they teach should reflect the need of the society to enable them optimally contribute to the development of the nation.

Another approach that can be adapted is for teachers to determine to assess all domains of educational taxonomy such that a large ground is covered for multiple purposes. This may reveal the extent to which the learner understood and areas of possible challenge which teachers must address to enhance progress of learners.

Assessment tools and strategies will require more holistic ways to measure applications, synthesis and comprehension (Palm, 2008). Such strategies will enable learners to find solutions.

In addition, assessment requires that teachers should involve the student in the assessment, thus developing the students' self-confidence in them as against the old order whereby they were only faced with responding to prepared and predetermined set of questions by the teacher. Such methods failed to recognize the potentials in the learner. This type of assessment will carry the learner from the beginning to the end. Carrying them along during planning, execution and evaluation of assessment process shifts the burden off the teacher to the learners and this will creates sense of belongings and ownership (Nunes, 2004).

Another vital approach is peer-assessments, whereby students are asked to assess the work and provide feedback on how to improve the work of their colleagues. This method of assessment encourages collaboration among learners and activates innate skills in each learner that could be developed to enhance effective teaching and learning process (Barootchi & Keshavarz, 2002). This approach will enable learners acquire knowledge and be accountable for their performance with the aim of making improvement in future assignments. In assembling the personal work of students over time, learners will weigh the quality of all the works that had been submitted for assessment and the grades to be assigned for each of them so as to develop their metacognition, active participation make the learning process learner-centered (McMillan & Hearn, 2008). This strategy it give room for independent assessment by the teacher and learner, the effect will be an opportunity to discuss individual learning peculiarities and vision.

Another approach that is suggested in this paper is rubrics. This is a measuring tool designed and calibrated to ensure validity and reliability and can be used for determining comprehension and aptitude in soft and hard skills (Reeves & Stanford, 2009). When used with summative assessments, it adds values to the entire understanding and information gained from being educated for specific purposes. In addition, this form of assessment encourages individual learners to monitor their own progress toward predetermined grade (Andrade, Ying & Xiaolei., 2008; Lee & Lee, 2009; National Research Council, 2002).

Research evidence attest to efficacy of Rubrics as a tool that can be used for all grades to achieve progress in curricular objectives (Andrade, Buff, Terry, Erano, & Paolino, 2009; Lee & Lee, 2009). Similarly, awareness of lesson goals and strengthening of one's behaviour with this tool will expand commitment and give room for students who are physically challenged to learn better in classes combined both -physically challenged and normal students (Lee & Lee, 2009). This tool has the capacity of being used as a teaching and appraisal instrument (Andrade, et al., 2008; Popham, 1997). The contents of this instrument must be designed to be useful for instruction and appraisal (Wiggins & McTighe, 2005). Popham (2008) suggests that the content should be considered a significant aspect of the instrument and should be detailed enough to support designing lessons for mastery by the learner. For this tool to be valid and reliable, work done by students should be collected, sorted and rated (Wiggins & McTighe, 2005).

These team efforts will stimulate teachers and students' togetherness and understanding as they design and use the instrument (Lee & Lee, 2009). Student's confidence is aroused as they feel that they are part and parcel of the process (Lundenberg, 1997; Reeves & Stanford, 2009). Making students partners in the development of the tool encourages them to be critical thinkers and heighten their sense of responsibility for their own education that can be used in other fields (Andrade et. al., 2008; Lee and Lee, 2009; Skillings and Ferrell, 2000; National Research Council, 2002). According to Wiggins and McTighe (2005), a student will reach his optimal level when he is capable of applying acquired knowledge to other field.

Another approach that is suggested for the use of a teacher is known as performance-based assessments (PBA) is used to evaluate the learners competence in lesson learnt and how the knowledge acquired can be applied practically. This approach exposes students to what they know and how it is used in an unknown and an artificial classroom environment (Palm, 2008).

Inclusive in the performance-based assessment approach is portfolios which comprise previous works of a learner that had been kept over time and used primarily as an outcome performance. This is different from one-time tests of a learner, it displays attempt made by the student over a given period and which measures transfer of what was learnt beyond simple regurgitation in the traditional one-time testing. This approach

depicts an objective measure of learner's ability and is usually student-centered (Anderson & Bachor, 1998; Barootchi & Keshavarz, 2002). One characteristic of portfolios is its flexibility and ability to adapt to multiple subject areas at various levels. What constitutes criteria varies from teachers to teachers and is determined by what is to be achieved at the end. Few teachers focus on outcomes, whereas others take into consideration the context, input and the process.

Advantages of Eliminating the Bottleneck

One of the advantages associated with this approach may be seen concurrently with classroom instruction since it is the compilation of the works embarked upon from the beginning of the year to the end. Literature highlighted its dual role as a teaching and testing technique an added advantage that can be derived by using this assessment procedure. Its effective use will contribute to teaching and learning without any prejudice (Sweet, 1993; National Research Council, 2002). The adoption of this approach by teacher will increase assimilation of ideas on the part of the learner in many subjects. Every standard portfolio takes into consideration students' participation.

The advent of technology has empowered teachers to effectively use portfolio as an assessment tool as they have advanced from using folder made of cardboards to digital using software packages which has added advantage over the conventional portfolios that drag educational implementation.

Lastly, most of the tools already discussed in this paper focus on summative assessment. However, teachers should be acquainted with another strategy known as self-assessment. Basically, the goal of self-assessment is the identification of student's strong and weak areas which enable them to make necessary adjustments to achieving the goal. Personal examination is when a student critiques his own work with the aim of increasing his output as they are conscious of the inconsistencies between the present and intended goal. The tool falls in line with established order in education as it creates a distinction between objectives and benchmarks with which progress made by the teacher and students can be evaluated. This innovative strategy endorses instruction that assists learners to replicate their success and reveals areas where more efforts should be directed for development on the task. To achieve the best from personal evaluation, there must be an agreement between the teacher and the learner on what to look for and the procedure for the application of the standard must be taught. There must be regular response for improvement and acquisition of knowledge on how to use the information collected for future action (Ross, 2006).

One other advantage associated with self-assessment as a strategy is that immediate feedback is given to the student concerning his work. No single teacher can attend to individual students' challenges but when a student is knowledgeable in using self-assessment as a tool for formative assessment, they will be able to assess themselves

without much pressure on their teacher (Andrade & Valtcheva, 2009). This assertion was supported by Ross (2006) on effective assessment by the students. Teachers should therefore, develop this construct in their students so that they can concentrate on what they will learn on the work rather than what will be achieved at the end of the teaching-learning process as performance goals. This could be developed in learners by using interview, journal, questionnaire and checklists. Since the focus is on determining ones progress, the process can be accelerated through collaboration between the teacher and the student which will open the horizon of students to another way of making progress in their learning. The criteria to be used here to make the assessment valid and credible must be challenging (McMillian & Heam, 2008).

Innovative assessment strategy is driven by the trust that when needs assessment is carried out, appropriate curriculum will be put in place by schools to yield results in the evaluation. This explains why much emphasis is placed on strategies that will promote pragmatic and learner-centered classroom-based assessment. The basic notion is to diversify skills to be taught and what could be evaluated to reflect the need of the society. Concerted efforts should be mounted to implement this student-centered approach in schools to address key in improving the teaching-learning process. This is achieved when teacher's capacity in these innovative strategies is built through regular on-the-job training, workshops as well as seminars. Coupled with this is the ability of teachers to effectively use the strategies in the classroom for maximum academic achievement.

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