

Redesigning Assessment for Holistic Learning

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Abstract

This paper discusses the importance of holistic assessment in the teaching and learning process at all levels of education, both in schools and in higher education institutions. Redesigning classroom assessment for holistic learning to improve student learning is not a new idea. Educators conduct assessment for a variety of purposes such as determining the level of student academic achievement or identifying weaknesses and strengths of students. Educators need to be equipped with ways to maintain these processes to determine the quality of student achievement. Assessment should reflect the understanding that learning is a complex process by engaging a varied selection of techniques, comprising those that require real and authentic performance, utilising them over a period so as to disclose evolution, progress, and emergent steps of integration. The assessment should be continuous and balanced. Implementing holistic assessment benefits the students, teachers and stakeholders. Educators should develop courses with diversified teaching and learning materials that enrich students' learning experiences with appropriate and authentic activities. Holistic assessment ensures that curriculum is developed to relate to the real world requirement of the tasks and setting that demand thought-provoking conditions to challenge the students. This paper focuses on applying various assessment methods that need to be mastered by educators to ensure students benefit in terms of their personal growth, strength and their learning process. It also offers some recommendations that could help in augmenting assessment, teaching and learning.

Keywords: Redesigning; Holistic assessment; Constructive alignment.



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1. Introduction

Holistic learning is not viewed as a particular technique but rather a paradigm as propagated by Miller (1992) as it aspires to recognise education with regard to student needs in the learning process as a whole. As opposed to the 'traditional education' that aims at achieving standards using standardised tests to quantify learning, holistic learning promotes student learning based on the learning outcomes, needs and goals (Forbes, 2003). As a result, a traditional testing framework constructs a conflict in holistic learning, as its very purpose is to look at education in a new direction and to move away from the decontextualised and product oriented conditions of the classroom. The nature of assessment plays an important role in education today. We need to shift learning in a more holistic direction by applying alternative approaches for more effective teaching and learning. Teachers have realised the importance of alternative assessment as a way to transform their teaching and make learning more meaningful. Alternative assessment approaches are being utilised to engage learning, including portfolios, peer-assessment, and self-assessment with greater emphasis on formative assessment of learning outcomes.

Assessment is an important process in teaching and learning at all levels of education, whether in schools or in higher education institutions. Assessment is conducted for a variety of purposes such as determining the level of academic achievement, detecting weaknesses and strengths of students in the academic field and fulfilling admission requirements to a university program. Participants, especially educators, need to be equipped with ways to maintain these processes to determine the quality of student achievement. The quality of student academic achievement depends on assessment being taught as learning and for learning.

The study is guided by one research question:

How does the mastery of holistic assessment help teachers to assess students' knowledge and skills?

The purpose of this study is to find out the types of holistic assessment teachers can use to assess students' knowledge and skills that will allow students to reach to their full potential.

2. Types of Holistic Assessments

2.1. Constructive Alignment

According to Jantan (2010), constructive alignment is a concept designed based on the outcomes-based education (OBE) approach that permits the learners to construct their own learning through the appropriateness of the teaching and learning activities. The teacher's role is to construct a learning environment that sustains the

learning activities suitable for attaining the anticipated learning outcomes (Biggs, 2003). There is a need to specify each subject or course curriculum learning outcomes from Bloom's Taxonomy (Knowledge, Skills and Affection) to match the assessment methods; following that, teachers can then design suitable teaching and learning activities to include the learners towards activating the action verbs stipulated in the learning outcomes (Jantan, 2010).

2.2. Portfolio Assessment

Paulson *et al.* (1991), defined portfolio as a purposeful collection of student's work that shows the student's achievements, progress and effort in chosen subjects of the curriculum. Hedge (2000) and Rea (2001) divulged that a wide body of theoretical research recommends the practice of portfolios in both the ESL and EFL classroom contexts. Portfolios contain a collection of student's best works with evidence, student-chosen examples of learning experiences associated to the learning outcomes of a particular unit and other related documents that report student's growth and development in terms of meeting the specified learning objectives. Students can include an array of teaching and learning materials prepared by their teachers, students' self-reflections, best samples of work, and others (Valencia, 1990). The main purpose of portfolio assessment is to assist students in collecting evidence of their work to showcase their capabilities, talents and writing abilities (Venn, 2000). Students' involvement in the portfolio development process allows and creates the chance for self-reflection that makes the students come up with the goals and align their learning technique (Fisher and King, 1995; Olson, 1991). The portfolio approach provides students an opportunity for self-directed learning. Students are allowed to determine the kind of documents related to the learning to include in the portfolio to reveal how learning can be meaningful and thus reflect on what and how they have learned. Portfolios focus on the process of learning and the learners' feedback on achieving success in accomplishing the learning objectives. Therefore, students can have high level of confidence and motivation when they reflect upon achievements. So when students are able to assess themselves, automatically they will start to take charge of their own learning. Portfolio assessment captures a richer array of what students know and can do than is possible with multiple choice task. Present day aims for students go beyond memorising knowledge of facts, to be replaced with other elements such as transfer of knowledge, problem solving, critical and creative thinking skills, exposure to more lifelong and current information, and ability to think independently. Aims also comprise elements including diligence, motivation, flexibility, and self-confidence.

A study conducted by Sarker and Hu (2006) on a group of third year unit of transportation engineering in the Bachelor degree of Civil Engineering revealed that portfolio creation mainly assisted their learning as it allowed them to take charge of their own learning. Not only that, findings revealed that developing the portfolio gave them an opportunity to always monitor their progress and reflect from time to time on what they have learnt. The students confirmed that the portfolio assessment conducted was a valid form of assessment. Portfolio assessment is successful when the teacher or instructor abides by the guidelines, often give constructive and regular feedback, and produce fair weightage of the portfolio assessment in line with the workload given. Hence, the given aspects need to be emphasised in order to design and use portfolio as an assessment tool. Portfolio assessment is an alternative to the traditional tests as it is believed to have more advantages than the traditional tests. Portfolio assessment is powerful as it allows students to monitor their own progress in learning as opposed to the traditional tests which does not allow or give feedback to students and limit student performance on real tasks (Dudley, 2001). Portfolio assessment is able to overcome the weaknesses and limitations of traditional tests and give teachers a snapshot of what the students understand. Portfolio assessment brings out a more complete or real picture of what the students are capable of and what they can do with what they know (Gomez, 2000). According to Hancock (2004), portfolio assessment engages students in deep thinking and provides the platform for them to be independent in learning. This surfaced as when the students are involved in the process of finalizing portfolio assessment, they are automatically consigned to be in charge to choose their work completed to be compiled in the portfolios. Students are also asked to share their views on the progress made and target goals for the future with the respective teachers. Portfolio assessment is strongly recommended due to its nature requesting for more student-centred activities.

2.3. Self-Assessment

Self-assessment and self-regulation of learning are reported as most influential as it assist students to progress in their learning (Rudd and Gunstone, 1993; Smolen *et al.*, 1995; Zimmerman and Martinez-Pons, 1990). Portfolios are mainly supported by the effectiveness of self-assessment, supporters of assessment portfolios and stakeholders including schools (O'Malley and Valdez, 1996). Students are believed to get involved in assessing their own progress and peers' work based on the scoring criteria, thus concentrating on the educational goals they want to attain. Students become more aware and alert when they are engaged in self-assessment process specifically in the how and what of their learning. According to Kohonen (2000) portfolio assessment creates ways for promoting learner autonomy not just by telling students that they are in charge of their learning but by making them involved in the process. Making students conscious and reflective about their learning is a complicated task which should be made more practical by means of a criterion-referenced plan such a predetermined organised self-assessment (Khodadady and Khodabakshzade, 2012). Arguments put forward by Holec (1981), Tudor (1996) and Thomson (1996) revealed that self-assessment is an integrated part of autonomous learning. This is because the role of self-assessment in promoting learner autonomy has been highlighted to the extent that Hunt *et al.* (1989) argue that without learner self-assessment and evaluation "there cannot be real autonomy" (p. 207). Self-assessment promotes learner autonomy (Little, 2005). It plays a crucial role in reflective learning. Students need to understand and internalise reasons for teachers asking them to do the self-assessment. Self-assessment is an indicator of students' understanding of lessons learnt in the classroom and also an evaluative account of their activities which they have to

place in their portfolios. This allows for both the teacher and student to collaborate in the curriculum evaluation process and provide learners with opportunity to use their knowledge beyond classroom (Khodadady and Khodabakshzade, 2012).

2.4. Peer Assessment

According to Bloxham and Boyd (2007), peer assessment is one of the most influential forms of alternative assessment in higher education and assessment worldwide as it creates pathways for educators to expand assessment methods and involve students in the assessment process. In other words, peer assessment refers to providing opportunities to students so that they are able to assess their peers' work and also provide some constructive feedback and/or grades. Some other terms related to describing the peer assessment process include peer-coaching, peer assisting, peer monitoring, and so on (Tighe-Mooney *et al.*, 2016). Peer assessment portrays the processes by which students produce quality work in terms of process or products of peers of similar status (Topping, 1998). The benefits of peer assessment are specifically found in formative stages of assessment in which the progress of the students' capabilities are emphasised. A study conducted by Black and Wiliam (1998a) revealed that all students who participated in the peer assessment process were able activate their thinking and that a large proportion of the students (85%) divulged that it made them learn more. According to Bloxham and Boyd (2007), students who participate in peer assessment will gain the following benefits:

- It assists the students to comprehend the curriculum standards of the particular subject
- It educates them to learn and identify the assessment criteria and how they can apply this to assess their peer's work.
- It teaches them to understand the concept of alternative assessment related to academic tasks
- It provides an opportunity to be able to make judgments and validate views
- It teaches them to be able to provide constructive feedback to peers
- It trains them for self-directed learning by developing their capability to observe their own progress rather than depend on others

According to Chan (2013), Donaldson and Topping (1996), the peer tutoring process is related to peer assessment because the peers need to be trained before they assess the task. Peer tutoring process refers to students communicating, giving feedback and support to the learning process (Topping, 2005). When the students are involved in peer assessment tasks, they are not required to interact or give feedback physically but they are to assess their peer's work based on a rubric developed in line with the given task. Medcalf (1992), opined that cooperative learning is an approach that inspires the learning of peers or peer tutoring. In short, peer assessment is viewed as a form of cooperative learning as it implies the same function to peer tutoring. When the peers provide feedback to assist their peers to improve the quality of the tasks given, it shows how the peers are involved to collaborate and interact with one another (Kollar and Frank, 2010). As a result, peer assessment provides the platform for peers to go through the peer tutoring process that motivates them to learn and improvise learning (Slavin, 1996).

2.5. Group Discussion

Group presentations require students to discuss and complete a shared task together. Students working together for group presentation are aware that they have work as a team in order to solve a problem given, look for a solution, or complete a common goal (Artzt and Newman, 1990). Students working in group presentations are aware they share a special bond in pursuit of success. Group presentations can be achieved when students assist each team member, give moral support to passive team members and encourage each other to contribute ideas on a given task. Individual accountability is crucial in group presentation. Each team member in the group can assess each member's suggestions and contributions and ensure each member is responsible in making a final decision at the end of the discussion. When students sit together, they can brainstorm and generate ideas. Each student in the assigned group can contribute ideas and this will generate a large number of responses to the question given. Also, when student sit and discuss facing each other, they will get the opportunity to connect and interact via face to face. Group presentation is dynamic in the sense as it allows students to move around and verbalise their thoughts. In the traditional setting and teaching classroom, students are passive and just receive the instruction as is without being given any opportunity to share their views. In short, group presentation is effective in accomplishing student-centred learning outcomes. When group presentation is structured and organised, students will be able to produce quality work that reveal holistic learning and understanding of the topics assigned (Strauss *et al.*, 2011). Kågesten and Engelbrecht (2007), in their study divulged that students who develop presentation for deep learning skills among undergraduates are more involved in the learning process as it improves their oral skills.

2.6. Self-Reflective Journals

Self-reflective journals allow students to think and reflect on the learning experiences that they have encountered. Through self-reflective journal writing, students are able to share their thoughts, weaknesses, strengths and other related matters regarding academics that they can convey to their teachers if they are too reluctant to express in the classroom. Certainly many strategies allow students to reflect; self-reflective journal is evidence-based that reveals the student's thinking process and also their ability of comprehending learning. Such journals are very influential and powerful in terms of reporting individual personal growth; they allow students to express feelings, thoughts and comments on what they have learnt regarding their coursework. Self-reflective journals promote students' critical thinking and also enable them to transfer knowledge learnt in the form of writing. According to

Stevens and Cooper (2009), reflection is very powerful as it allows students to construct new knowledge and make meaning based on their own experience. Langer (2002), divulged that when the students participate in self-reflective journal writing, they automatically develop the capability of self-enquiry. The reflective journal provides students with the platform to narrate their personal experience about their studies and course content. Through the self-reflective journal writing experience, students monitor their own needs in learning (Bisman, 2011). Hence, self-reflective journals inspire individuality and accountability for individual student in terms of how they activate their thinking for learning. When students are engaged in the reflecting process, they will focus, write, reflect, think about the learning process, analyse the context of the situation, explain and gain some insights from the experiences (Homik and Melis, 2006).

3. Implications of Holistic Assessment

Students can benefit a lot from holistic assessment as it provides a more holistic judgment on student learning. Holistic assessment is unique in the sense that it helps the students to discover their best potential in class without any boundaries. Students need a natural and conducive learning environment to work best and encourage students to express their true ability. Students are unable to show their true ability in a timed-examination and this also causes anxiety in them. Hence, it is the teacher's responsibility to design and provide the opportunity for students to reflect authentically on the nature of the learning process in holistic assessment. The activities prepared for teaching and learning activities have to be aligned with the learning objectives (Sadler, 2009). Also, by implementing holistic assessment approach it also lessens teacher-talk as students will be involved with discussion with peers to develop an intellectual holistic approach. The peer-assessment exposure nurtures the students to be evaluative of their peer's work by giving them some feedback on how they can improve their weaknesses provided if the teachers have trained and exposed students to peer-assessment. This experience would then produce students who can reflect critically, analyse and apply their knowledge and work simultaneously as they learn. This will definitely benefit the students in terms of monitoring their learning and work produced. Teachers must be well-versed in using and administering the right assessment strategy that are essential factors in the students' coping and improving their learning. Holistic assessment has provided valuable information and will benefit not only the teachers but also the stakeholders. Sadler (2009), shared a possible implication that can emerge from holistic assessment in that students will be able to have a clearer understanding in handling assessment tasks precisely. Teachers must develop the correct procedures for students to be involved in the assessment tasks by producing appropriate rubrics and also training them to be a part of the assessment. According to Hosseini and Ghabanchi (2014), using portfolio as an assessment tool has a positive effect on student motivation. Thus, portfolio assessment could be regarded as a tool (Vygotsky's terminology) in enhancing student growth and motivation. The fact is that portfolio assessment could affect both psychological and cognitive ability

4. Recommendations

Based on the preceding discussion, the following are recommended:

1. Holistic assessment must be introduced in schools. For this purpose, teachers must be trained first before they can guide the students to take part in the assessment process.
2. The use of holistic assessment appeared to complement teachers' use of instructional strategies centred on students' group work, classroom presentations and individual growth.
3. Teachers must provide feedback based on students' work as it is crucial in determining the types of work required for students to move to the next stage either in the form of remedial or enrichment activity.

5. Conclusion

Holistic assessment enabled teachers to broaden their curriculum to include areas of learning which they traditionally could not assess with standard testing, since such test was based on the lesson units planned by the teachers. Issues such as the correct procedures for carrying out holistic assessment should be addressed at the school and classroom levels. The ability to interpret the different kinds of information about students' learning among students with low and high ability is significant. Teachers need to be trained to interpret learning data so that they can make the correct decisions. Holistic assessment can be used as a mechanism that promotes self and active learning as students are in control of their own learning. They can monitor their own progress and consciously identify their own learning goals. Learning goals are achievable objectives defined by the syllabus and teachers are responsible in imparting these to the students.

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