I have a dream … for innovative assessments

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I have a DREAM … for Innovative Assessments

Dr Swapna Koshy

**Abstract**: The portals of higher education have been opened to the masses and classrooms are now populated with students of varying talents, skill levels and attitudes. It is important for educators to cater to their varied student cohort especially in assessments. Deep learning is the goal of teaching and learning and meaningful assessments play a vital role in achieving this. Innovative assessments, both blended and traditional, are teamed with new assessment strategies to achieve this. Based on research on the use of innovative assessments spanning much over a decade I propose the DREAM model as a framework for educators. Assignments should be D- differentiated, R – repeatable, E- engaging, A – authentic and M – measurable. In this paper each of these concepts are further developed to function as guidelines for educators who want to develop innovative assessment methods.

**Keywords**: DREAM model; guidelines; innovative assessments; student learning

**I INTRODUCTION**

The demographic characteristics of today’s classroom and the demands placed by various stakeholders in higher education including administrative bodies requires constant innovation in all aspects of teaching and learning including assessments. Since assessments are a key aspect implemented by an individual lecturer or can be practised institution wide. The introduction of a traditional assessment for a ‘new’ purpose can also be classified innovative [1]. Assessments that actively involve students using engaging tasks like objective tests, group, peer and self-assessment are considered innovative [2]. A more general definition as "an idea, product, process or service that adds value, and is useful or transforms current practice in the context to which it is applied" [3] encompasses every value addition made through assessments.

**III GUIDELINES FOR INNOVATORS**

Educators are increasingly engaging in creating and using innovative assessments. This has led to the development of guidelines to help practitioners. Studies have focused on the students’ perspective, ease of implementation for educators and benefits for the institution. Theorists [4] who focused on benefits for students suggest that innovative assessments must “consider student workload carefully; take steps to maintain motivation; introduce a new form of assessment carefully; establish a clear framework and guidelines; help students to understand assessment criteria; pay careful attention to organizational details and procedures and pay particular attention to how you award marks and for what.” Others [5] recommend the use of ‘fit-for-purpose’ assessments to improve pedagogy “the single most useful thing we as teachers can do to influence positively the process of teaching and learning is to make the right choices in designing a ‘fit-for-purpose’ assessment strategy.” Innovative assessments are ‘fit-for-purpose’ and therefore there is a need for broad guidelines on developing them.

**IV THE DREAM MODEL**

The DREAM model proposes some guide lines for educators engaged in innovation. This is based on a decade’s experience of developing, implementing and assessing innovative assessments used in large (35-600 students) multi-cultural and multi-skilled under graduate and post graduate classes. Most innovative assessments were welcomed by students, some were in the pedagogical process and demand much effort and time from both educators and students improvements in assessment methods directly impact pedagogy. Over the past decades practitioners have done considerable research on assessments and identified several methods for improving their efficacy. This has led to the development of new features of assessments like formative and summative as well as new requirements like differentiated and sustainable assessments. A cumulative effect of all these developments has been keen experimentation by educators adding to the repertoire of traditional assessments through innovation.

**II DEFINING INNOVATION**

Innovation in assessment can take many forms. It can signify the introduction of a new format, a format that is new in the context or a minor change in existing methods. It can be implemented by an individual lecturer or can be practised institution wide. The introduction of a traditional assessment for a ‘new’ purpose can also be classified innovative [1]. Assessments that actively involve students using engaging tasks like objective tests, group, peer and self-assessment are considered innovative [2]. A more general definition as "an idea, product, process or service that adds value, and is useful or transforms current practice in the context to which it is applied" [3] encompasses every value addition made through assessments.

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The DREAM model proposes some guide lines for educators engaged in innovation. This is based on a decade’s experience of developing, implementing and assessing innovative assessments used in large (35-600 students) multi-cultural and multi-skilled under graduate and post graduate classes. Most innovative assessments were welcomed by students, some were
repeated in the same subject and in other subjects and few adopted by colleagues. Findings of action research on innovative assessments including their role in improving student interest and grades have been shared regularly with colleagues within the university and outside through professional development sessions, international conferences, journal articles and book chapters. Educators show great interest in innovative assessments but few go on to develop their own formats or use what is readily available. This reticence could be due to the absence of detailed guidelines that could help in the process. It is this gap that the DREAM model attempts to bridge.

Innovative assessments should be – Differentiated, Repeatable, Engaging, Authentic and Measurable. The factors are continually developing and have several common features; hence they are represented on a continuum/wheel. Each factor is equally essential for Innovative assessments to succeed and is not hierarchical. The factor definers of this 5 factor model are delineated below and are represented in the table for quick reference.

V FACTOR DEFINERS

A. Differentiated

AFL or assessment for learning stresses on assessment formats that help students learn. To achieve this the format of the assessment should inspire and suit each student. Differentiated assessment caters to individual student differences in learning styles, skill level, language competence, previous learning and curricular experiences. In differentiated assessment students are given a choice of formats to present their work including oral presentation, role play, poster display, on-line game, podcast, video clip, humorous presentation, games and written work. A blended model is possible here with assignments like online games made available on the internet. Students choose the format that appeals to them and are confident about though the topic and marking criteria remain the same for all. Research on the efficacy of differentiated assessments has shown that it helps to improve participation, motivation, deep and active learning and grades especially since they are formative in nature [6]. Growing diversity in the classroom warrants the use of differentiated assessments and practitioners from around the world vouch for it [7]–[8]. Assessing large classes needs to be engaging for the teacher too. Grading hundreds of essays, reports or final exams may lead to teacher ennui and burn out. The variety in differentiated assessments acts as an antidote to this.

B. Repeatable

This factor has several dimensions. The assessment format and skills needed must be replicable in the same subject, other subjects and at work. The last two dimensions touch on the concept of Authentic assessments and is explained later. Repeatability of innovative assessments is important to familiarise students with the format and skills needed. Transferable skills instil confidence and minimises resistance. This can be achieved by giving clear and detailed instructions and repeating the innovative assessment in the same subject or in other subjects and ensuring that it is relevant to the work place. Work load reduction for educators and students is a major benefit of repeatability. It also allows educators to make improvements before using the innovative assessment again and reduces teacher burn out. For example poster presentations have been used in under graduate and post graduate classes in subjects ranging from nursing to marketing. Satisfying the demands of sustainable assessments poster presentation skills could be used in marketing and sales presentations, client and in house presentations, product launches, idea pitches etc

C Engaging

The main conceptual support for this factor is the active learning theory recommended in their 1991 Higher Education Report titled ‘Active Learning: Creating Excitement in the Classroom’ [9]. The title is self-explanatory and vouches for the efficacy of active learning which engages students and puts the onus of learning on them. Several studies confirm that active learning engages students, increases retention, improves motivation, leads to deep learning and certainly improved grades [10]-[11]-[12]. Technological progress and the access to it – even in classrooms – has changed students’ concentration span and patterns. It is important for educators to keep students engaged in the work. Assessments that are relevant, seen as helping to develop skills useful at work and in other subjects, are novel and are interesting to work on motivates and engages students and encourages deep learning. The concept of deep learning introduced by Marton and Saljo [13] and popularised in several research studies[14]-[15] is akin to active learning – when students engage in active learning the result is deep learning. Avoiding rote learning, engaging with the material, forming qualitative judgements, participating in group work, negotiating topics for assessment tasks, formulating marking criteria for assignments etc. have been identified to foster deep learning. Assessments that include these elements lead to engagement or interest in the work. Peer participation and peer assessment also makes assessments more engaging. In ‘10 Benefits of Getting Students to Participate in Classroom Discussions’ [16] Maryellen Weimer lists creating interest and engaging students as the first two benefits. Several studies including Dancer and Kamvounias [17] vouch that engagement results from participation. When in-class assessments are engaging it positively impacts attendance and retention rates too. The whole class can be engaged through a quiz, game, role play or even poster presentation.

D Authentic

Authentic assessments that mirror work place tasks are used mainly in professional courses such as medicine, engineering, media and some management sciences. However, introduction of these in all fields of study will help to bridge the gap between classroom learning and industry needs. Wiggins (1993) [18] defined authentic assessment as tasks which make students “competent intellectual performers” while Newman and Archbald (cited in Cumming and Maxwell, 1999) [19] focused on awareness of the transferability of learning because of personal skills developed. This confirms that ‘pre-authentication’, which is the need for students to be aware of an assessment’s authenticity, is necessary for authentic assessment to be effective. Smith and Koshy (2005) [20] in their study of
the efficacy of authentic assessments in a foundation skill subject confirm that metacognition helped students appreciate and involve better in authentic assessments. Constructive alignment of assessment with learning objectives derived from graduate attributes makes students work ready as graduate attributes are formulated based on industry requirements. Theorists like (Kift, 2002; Cumming and Maxwell, 1999) [21]-[19] define authentic assessment as the use of tasks which are as close as possible to the subject objectives. Awareness of the future use of the assessments leads to greater commitment and involvement from students. Authentic assessments can be both formative and summative and can complement traditional assessment methods. Biggs (1999) [22] identifies the task; the criteria; and the result, or feedback format as important components of an authentic assessment. Use of criteria and timely feedback are important in facilitating good learning. Jon Mueller (2012) [23] lists other benefits like being student centred and that teachers are encouraged to teach to the test. A sales presentation by a marketing student or an essay written by a studies skill student both qualify as authentic assessments. Authenticity is a characteristic of Sustainable assessment or ‘assessment as learning’ which focuses on designing assessments that meet the needs of the present without compromising the ability of students to meet their own future learning needs'. It ensures that graduate attributes are achieved as they are usually based on skills needed in the work place. Using authentic assessments has the added benefit of reducing plagiarism as they are unique.

E Measurable

This factor has different components. Using marking criteria is definitely first in the list, followed by provision for quick and detailed feedback both oral and written. Innovative assessments should also be measured for their usefulness in the teaching and learning process by reflective practitioners. An added benefit would be the possibility of measuring class participation. David Boud (2000) [24] while explicating Sustainable Assessments adds another dimension suggesting that students should participate in making the criteria for assessments as in the work place this is the practice. Well-developed criteria also increases transparency, student preparedness, and facilitates tutor or other staff use and inter/intra staff reliability. Criteria are also a key component of constructive alignment. Innovative assessments should also lend themselves to self and peer assessment. As feedback is an important element of formative assessment it is important for student improvement and learning and the quicker it is given the better. Assessments should be designed to reduce workload for educators and should be easily gradable. For example a poster presentation allows provision of immediate feedback both oral and written. Posters have been used in large tutorial classes so the ability of giving individual feedback should be highlighted. Feedback throws light on students’ learning and so is a measure of learning and teaching.

The table below summarises the key aspects of the model

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<thead>
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<th>TABLE I</th>
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<td>QUICK REFERENCE</td>
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<tr>
<th>Factor</th>
<th>Factor definers</th>
<th>Necessitated by</th>
<th>Application</th>
<th>Benefits</th>
<th>Concepts covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiated</td>
<td>Multiple assessment formats; Same topics and marking criteria</td>
<td>Diverse student cohorts</td>
<td>Topic – Interview skills Presented as oral presentation, role play, poster display, on-line activities, podcast, video clip, humorous presentation, games, Quiz</td>
<td>Motivation; Participation; Improved grades; Equitability; Avoiding plagiarism; Prevent teacher burnout</td>
<td>Assessment for learning; Formative assessment; Learning styles; Active learning; Deep learning; Blended learning; Inclusive assessments</td>
</tr>
<tr>
<td>Repeatable</td>
<td>Replicable in the same subject, other subjects, at work</td>
<td>Workload reduction for teacher and student Practice</td>
<td>Using poster presentation format in multiple assessments in the same subject, multiple subjects by innovator or colleagues</td>
<td>Can be replicated by other teachers, tutorial assistants in the same subject or in other subjects; Transferable skills; Confidence from format familiarity; Time saved on format familiarisation; Less resistance</td>
<td>Sustainable assessment for students and teacher; Self assessment; Developing informed judgement; Synthesise knowledge across the curriculum</td>
</tr>
<tr>
<td>Engaging</td>
<td>Assessments that are novel, Decreasing student</td>
<td>Quiz, Game,</td>
<td>Improves Retention;</td>
<td>Active Learning; Deep learning;</td>
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<td><strong>authentic</strong></td>
<td><strong>measurable</strong></td>
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<td>interested to work on</td>
<td>Role play, Poster presentation</td>
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<td>Interest; Motivation; attention span; retention; attendance</td>
<td>Sales presentation in marketing; Essay/outline for study skills</td>
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<tr>
<td>Gap between curriculum and skills needed at work; Low student commitment</td>
<td>Work readiness; Graduate attributes achieved; Less resistance</td>
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<td><strong>student centered</strong></td>
<td><strong>constructive alignment; Sustainable assessments; Focuses on higher-order knowledge and skills</strong></td>
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<tr>
<td>Gap between curriculum and skills needed at work; Low student commitment</td>
<td>Improved involvement; Self and peer assessment with criteria; Assessment of learning process; Preparedness for future assessments through feedback</td>
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<tr>
<td>Sales presentation in marketing; Essay/outline for study skills</td>
<td>Publishing marking criteria; Oral and written feedback; Grades for class participation; Action research on innovative assessments used</td>
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<td><strong>motivation</strong></td>
<td><strong>grades</strong></td>
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<td>Attended</td>
<td>Improved involvement; Self and peer assessment with criteria; Assessment of learning process; Preparedness for future assessments through feedback</td>
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The model should be constantly updated to reflect good practice and experiences of educators who use innovative assessments. Student and institutional response must also be recorded. Use of blended assessment is rising in popularity and has to be better represented in the model.

**VI REFERENCES**


[12] President’s Council of Advisors on Science and Technology, 2012, Engage to excel: Producing on million additional college graduates with degrees in science, technology, engineering, and mathematics’,


