Different types of assessments and why you might use them

Literature review

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Abstract

Assessments are a long established and integral method of measuring student performance and teacher efforts. It is reasoned that assessment strategies should be designed to continuously improve learning outcomes and enhance student development. Craddock and Mathias (2009, p.127) comment that “the development of appropriate assessment strategies is therefore a key part of effective curriculum development”.

This paper will look at barriers or reluctance to change through exploring Boud et al’s. (2017) article ‘the unconscious limits to change’ and then discuss why there is a need for variety in assessments. Additionally, this article will focus on exploring available assessment methods such as exams, presentations, posters, group projects and patchwork assessment.

Introduction

Assessment objectives of increasing student ability to be autonomous learners through self-critiquing skills are hindered by the lack of diversity of assessment methods in some academic programmes. Boud et al. (2017) discusses how assessment tasks can be improved through becoming aware of the ‘unconscious limits to change’ that prevent assessments from developing and evolving away from traditional methods. Traditional methods of examinations, extended writing and unseen papers have dominated the assessment process, which arguably disadvantages students who struggle with such formats and encourages learning through memorisation. Through increasing the variety and standard of assessment approaches, surface learning can be avoided while deeper cognitive understanding is improved (Scouller, 1998).

Unconscious limits to change

Assessment can often drive what, when and how students learn (Crook and Park, 2004). The purpose of assessment is to act as a tool for learning by allowing students to become self-critiques of their own work. However, as Boud et al (2017) highlight in their article ‘improving assessment tasks through addressing our unconscious limits to change’, there are five key unconscious limits to why assessments are not changed, which have been summarised as follows:
1. Status quo bias

This is where it becomes easy to select an option which is framed as the status quo rather than opting for the best possible option. This becomes even more troublesome when there are a large number of options, as the number of options increases, so does the status quo. A few reasons for this may include: the cost of making a change might outweigh the perceived benefits of the change, assessments that have been passed on from another teacher might be presumed to have been well thought through as they are already in use or lastly, there may be too much uncertainty and risk in adopting a new method that has not been tried before.

To begin resolving this issue, academics’ awareness of alternatives needs to be increased by reframing current assessments as one of the many possibilities rather than the only possibility i.e removing it as the status quo. Alternatively, change can be promoted by rewarding innovation, which can minimise the risk factor of ‘failing’ or worry that a new design will be not well received.

2. The planning fallacy

This is where there is an underestimation of how much time a task will take, leading to decisions being compromised. This can be improved by considering assessments tasks sooner rather than later in the design process.

3. Anchoring and adjustment

If current assessment tasks act as an anchor or starting point, future academics may adjust what they consider most appropriate towards what is currently in place rather than design tasks differently. Therefore, there is arguably a need to move away from these starting points in order to achieve desired goals. A potential way of doing this is through seeking external advice from colleagues with different approaches to assessment.

4. The endowment effect and the IKEA effect

This is where teachers show a strong sense of ownership over their assessment methods, and therefore are advertent to losing it, irrespective of its value. To resolve this, it has been suggested that distributing more responsibility for the design of assessment tasks can prevent possession by individual academics.

5. Overconfidence.

Confidence in an existing assessment may be a reason not to change it. However, confidence in an assessment regime may not necessarily reflect its quality. In order to overcome this, there should be reconsideration of whether planned assessment tasks are appropriate.

Through Boud’s (2017) theory it can be understood that there are several factors which hinder assessment methods from being developed, most of which can be resolved through reevaluating the purpose of assessment. These limits to change can be tackled through revisiting what the desired outcome of an assessment is, and whether the assessment method chosen is the most appropriate. Through reaffirming validity in this way, it ensures the authenticity of an assessment method that simulates real life experiences. Overcoming these issues can result in the quality of assessments increasing, which will feed into learning outcomes being strengthened as well.

Different assessment methods

Assessment methods that attempt to develop student’s skills in analysing, synthesising and applying knowledge allow for students to become independent and lifelong learners. On the other hand, assessments that are limited in testing for a range of skills often results in students memorising facts to succeed in specific assignments. This notion of surface learning can be supported by the notion of a hidden curriculum where they search for explicit or implicit messages on what counts in assessment
(Gibbs, 1999). Brown (2005, p. 81) notes that we should be considerate of not just “what we are assessing but also how and why we are assessing it”. Therefore, by looking at the benefits and drawbacks of various assessment methods, student learning behaviour can be better understood and the quality of each assessment type can be reconsidered. This section will outline a few types of assessments, including why they are or are not beneficial to the student experience.

Exams

Exams are commonly used in a summative format to test the knowledge and ability of students. This section will outline the use short answer questions and multiple-choice questions as a form of examination (essays will be discussed in the next section). These are often placed under restrictions such as a word count or time limit, which in turn can help reduce tutors’ marking time.

Short answer questions

Short answer questions (SAQ) are open ended questions requiring students to create an answer. Generally short answer questions only test basic factual knowledge and are marked based on students’ responses that meet targets.

It can be contended that short answer questions equip students with the ability to handle real world problems, particularly when scenarios are used and are then followed by asking SAQ. Klemmer et al. (2014) argues that real world scenarios are open ended, just as short answer questions are, which requires communicating appropriate responses. Therefore, this assessment method encourages logical and reasoning skills that other assessment formats lack (Hift, 2014).

A further advantage of SAQ’s is that they are fast to mark and easy to set in comparison to other assessments. It can be argued that the shorter the questions are in assessments, the more likely marking between examiners will be consistent and can be computerised to maximise efficiency (Thomas, 2003). A good SAQ will be able to challenge students in a fair manner whilst being focused on a specific subject or knowledge area. SAQ’s are difficult to construct as they require simple questions that are unambiguous in order to avoid confusing the students. Having unclear SAQ’s can result in increasing the difficulty of marking in comparison to other forms of assessment such as MCQ’s. However, the opportunity to write individual answers, without a predetermined response, increases the difficulty of guessing the correct answer. Lastly, this form of assessment is familiar to students as it is often used in exam situations. This may penalise students who do not read or write well, however the familiarity of the exam process can reduce anxiety in some students as they are familiar with the process. Writing and reading skills can also be improved through encouraging practice questions prior to examination.

Arguably the biggest disadvantage to SAQ’s is that they are unable to test deeper cognitive skills such as critical thinking or problem solving. The purpose of SAQ’s is rather to assess levels of recall and comprehension and develop students’ ability to organise their points in a succinct manner while leaving long essays an opportunity to demonstrate complex thinking (Maxwell, 2010). However, it does acknowledge the important of learning facts.

SAQ’s are challenged by course content as they are only able to be used where short responses are appropriate, making it difficult to assess complex topics. This has the potential of not fulfilling intended learning outcomes or omitting certain aspects of the syllabus. Therefore, students are unable to demonstrate breadth of knowledge and understanding, and consequently learn topics only at a surface level.
Multiple choice questions (MCQ)

These tests can assess large numbers of students in a short time whilst challenging their knowledge on different aspects of the course. This time efficiency can be further increased by the use of computerised Multiple-Choice Questions (MCQ), as they can be accessed anywhere at any time. They are also helpful as summative assessments as marks are instantaneously shared through an automated system, granting students immediate feedback to improve on. Furthermore, research demonstrates that some students prefer MCQs over essay based examinations as they lower their level of anxiety facing exams. The perception that MCQs are easier to prepare for, alongside the knowledge that there are pre-determined choices where the right answer is already written down, as well as an increase in the perceived higher success from answering questions correctly by chance, reduced anxiety levels before an exam. (Struyven et al., 2005)

One of the greatest difficulties with MCQ tests is designing questions as it requires multi logical thinking and using plausible alternatives to the correct answer that can help measure the student’s critical thinking skills (Brady, 2005). Academics constructing MCQ papers must have good writing skills, knowledge of the objectives and understand the content fully in order to link these to the questions asked (Vyas and Supe, 2008). Some notable errors made in MCQ’s are that there are more than one correct answer or no correct answer given as an option, uneven length of options, negative questions and the use of ‘all of the above’ or none of the above’. Implausible options can all threaten the validity of the assessment. (Vyas and Supe, 2008) Another common issue is negative marking, where students are marked down for not answering a question as opposed and/or answering it incorrectly. (Brady, 2005) These issues demonstrate a need to review whether MCQs are an effective way of measuring the understanding of learning outcomes for subject areas that require demonstration of broader skills such as analysis and critical thinking.

There is some controversy surrounding the reusing of MCQs. It is arguable that students do not remember old questions well and that by constantly renewing MCQ papers students do not get exposure to practice questions (McCoubrie, 2004). Reusing MCQ questions from a question bank can save tutors time in creating assessments, allowing them to focus energy on providing good quality teaching and feedback. There are also concerns that using MCQs only tests facts as opposed to higher cognitive skills however it is possible to write questions that are more complex and require higher level reasoning.

Essay

Essays are a form of extended writing that can take shape in many forms such as case studies, literature reviews, reports and reflective writing. They allow students to demonstrate existing knowledge, theories and at different levels their ability to analyse, evaluate or synthesise this knowledge with evidence. Winter (2003) argues that essays are favoured by academics for their efficiency. They can be easily passed between markers, moderators and examiners, and seem to test cognitive skills through determining whether students can select relevant facts, evaluate their view points and structure their arguments to demonstrate an understanding of the syllabus.

Coursework assignments allow students to spend time on their work over a period of time which can promote a deeper learning approach as there is greater emphasis on self-evaluation of work before a deadline. Kniveton (1996, Cited in Gibbs 2010) supports this view in his finds through suggesting that coursework, in comparison to exams, tests a variety of skills and abilities, which increases its level of fairness. This reflects the need to revisit the benefits of particular assessment types and clarify with students how they link with intended learning outcomes.
However, some argue that coursework can increase the risk of plagiarism and paraphrasing material. As this form of assessment has existed for a long time, it is easy to find old scripts to use as templates and find services online that will write students coursework for them for a small fee. Text matching tools can help reduce this issue however there is still a risk of impersonation, where students do not create the work themselves, that can go unnoticed by tutors. A further drawback of essay based assessments is that marking can be laborious. It is often slow and lengthy, which can delay the feedback process or place academic staff under pressure to do this in a short time span. Any delay can prevent students from engaging in self-review of their work to implement change before their next assignment.

Essays can however be valuable therefore taking action to reduce some of the disadvantages can include making the word limits fit the task and reduce them so concise information is given, changing topics and title each year, ensuring there is some requirement for students to relate the work to themselves.

Often essays form part of end of course examinations. Arguably this assessment method encourages rote learning techniques as opposed to active learning (Scouller, 1998). Exam situations can result in students leaving their studying to the last minute, with knowledge that a pass can be achieved through simple memorisation as opposed to deeper understanding of the subject area. Tang (1992 cited in Scouller, 1998) discovered that students may believe the quantity of learning is being assessed through essay based examination rather than the quality of their work.

Patchwork assessments comprise of multiple assignments that are completed throughout the course, to be ‘stitched together’ at the end. These short pieces of work achieve a variety of learning targets, and often include working in groups as part of the teaching-learning strategy (Winter 2003). This assessment method is cohesive with the idea that learning happens over time and should be spread-out throughout the course, which prevents rote learning and last minute preparation. Winter (2003, p.16) argues that “the sequence of tasks within a patchwork test is intended to build into the assessment process a recognition of learning as a gradual “coming to know”. Students are able to construct their own learning through patchwork assessment, with the opportunity to reflect on each project as a whole in a retrospective commentary once each part of the assessment has been stitched together (Winters, 2003).

Patchwork assessments are arguably two dimensional: the first being that staff define tasks from course material and secondly, students redefine through review and interpretation of the course material. Winter (2003) argues that this allows both the advantages of essays and portfolios to be combined into a new format i.e a unified structure and individual reflection. Therefore, this allows assessment to be for learning rather than a reflection of learning.

Difficulties of the patchwork approach can be that the process is a relatively new concept for most students, which can be overwhelming for under confident students and are perceived as increasing the marking workload. To resolve this issue, tutors should be realistic with students from the start that this is a challenging yet productive assessment process designed to prove that learning outcomes have been achieved.
Oral presentations

Presentations are a way of allowing students to demonstrate their ability to communicate in a clear and coherent manner (Thalluri and Penman, 2013). Presentations can be held in a variety of formats including debates, mock trials, and panel sessions or roleplay. This is an opportunity for students with strong verbal skills to demonstrate their skills, while allowing less confident students to develop a key skill that can be applied in employment (Zivkovic, 2014). Students are motivated by being rewarded for their creativity, as this aspect is often considered enjoyable in comparison to traditional assessment formats. Motivation means that students are keen to participate and are therefore are more likely to achieve learning outcomes.

Often students worry that their nervous delivery of content can affect the tutors understanding of the topic thus imply lack of understanding of the learning outcomes. This can be resolved through incorporating additional assessment methods with the presentation, such as a question and answer session or a self-reflective review of their presentation. Follow up discussions or question session can evaluate student’s problem-solving skills and probe depth of knowledge further, which allows students to remedy any gaps in their performance. Additionally, students are faced with a social pressure of performing well as they are aware of being watched by their peers. This can create opportunities for peer review, but also encourages self-reflection as students recognise the need to deliver high quality work.

An advantage of presentations is the immediacy of marking and feedback, which increases the efficiency and student satisfaction. Efficiency can be furthered through recording presentations which can speed up remarking. Recordings allow for students to assess themselves and for staff to evaluate performance levels as a whole, and whether their marking has been consistent. A challenge faced by this method however is that recordings may infringe student’s privacy rights. An effective way of tackling this is through limiting access to recording to tutors only and explaining the benefits of taking recordings to students.

Issues with group work will be addressed later in this paper in more depth. However, it can be noted here that group presentations have less opportunity for group members to be ‘freeloaders’. Often students complain that being marked as a group is unfair as ‘freeloaders’ can achieve good marks with little input. Combining presentations with discussions is an effective method of ensuring that every member of the group has participated actively. This allows for presentations to be a more honest reflection of group work.

Overall, the variety of presentation methods combined with the ability to challenge depth of knowledge with follow up questions strengthens the validity and reliability of this assessment method. Presentations still pose challenges for both staff and students, namely issues surrounding privacy. However, these issues can be resolved if the correct safeguards and guidelines are put in place.

Posters

Posters are a way of visually presenting information that has been designed by either groups of students or individuals. It has been contended that ‘different stages of a poster project can support peer and self-assessment’. (Jarvis and Cain, 2003, p.51) Through tutorials students can be eased into an unfamiliar project by breaking down the poster into three main stages: creating a plan, different presentation strategies and drafting the final product. Each stage allows for students to assess their own work and receive feedback from peers in a formative fashion before producing a final piece of work. Students can look at example posters, old projects and other people’s posters to aid their own judgement and internalise the standard of work required of them. Additionally, the pressure to produce work of a high standard arises when it is intended that the posters
are shared publically, beyond the tutor. This allows for students to practice their presentation skills thus gain transferable skills that can be taken beyond education into employment.

Posters that are created as part of group work can facilitate large cohorts well and reduce marking time and feedback turnaround. Feedback could be presented orally to either individuals in the group or to the group as a whole. Moreover, the originality of posters means that work is not repeated, thus reducing the risk of plagiarism (Jarvis and Cain, 2003). The limited space of a poster forces students to determine what the key arguments, themes and evidence are which can work well for projects that require analysis. Posters may be used as an assessment method on their own or could be combined with other assessment tools such as an oral presentation. Combining posters can allow students to demonstrate further the breadth of their understanding and research that may have not been included in the poster.

A drawback of posters is that students may be focused on the aesthetic of the poster as opposed to the content. This would reduce the scope for a deeper approach to learning which fails students in developing skills that are needed for academic development. However, this can be remedied through preparation of the task by outlining in tutorials and classes what the desired learning outcomes are.

**Group project**

Assessing students in groups can be an effective method of promoting team building skills amongst students but also can save time for staff. Students value the skills acquired through group work, as they can be reflected in employment. Group work allows a sense of academic community to be created as students from different backgrounds have the opportunity to collectively share their knowledge and learning. It can help quieter students feel less isolated as they can share their opinions in smaller groups, which develops their social skills. Communication between students allows peer assessment to take place, where students are able to collaboratively teach and learn from one another. (Gaur and Gupta, 2013).

Employment skills that can be gained from group work include time management, planning and conflict resolution (Almond, 2009). Group projects allow students to overcome personal differences and to negotiate compromises to ensure the appropriate work can be delivered. Students become self-aware of their own contribution to a project, thus their self-confidence increases as they are pinpoint their strengths, while being able assess the efforts of their peers and provide them feedback for improvement. The realistic environment of group work also allows students to appreciate working with people of different skills, approaches and opinions. As a result, students take away the ability to co-operate well with others and develop effective working relationships.

Student satisfaction of group assessment can be influenced by how marking is conducted. Students argue that providing the same mark to each member of the group can negatively reflect individual input as only the output of the group is considered when marking (Johnston and Miles, 2004). Often, weaker members of the group get away from ‘free riding’ off more able members. This affects the abilities of stronger members as they are unable to stimulate their learning as the imbalance in the group prevents essential interpersonal skills and peer assessment to take place.

It can be argued that a method of resolving this is to stop allocating a group mark, but award individual marks. Penalising proactive students for the poor contributions of their peers can hinder motivation towards group tasks and can cause an adverse effect on student relationships. Other methods of assessing the group include allocating a group mark for the end product whilst providing individual marks for the process and effort put into the task. Further passive learning can be prevented through asking students to peer assess the contributions of other team members which will be considered in the final marks (Gaur and Gupta, 2013).
Why variety?

Brown and Glasner (2000) argue “the conventional ways by which we choose how to assess our students are just not good enough to achieve what we want” (Brown and Glasner, 2000, p.4). This feeds into the notion that traditional assessment methods only assess a narrow range of skills, hence whereby increasing variety ensures that students develop as lifelong learners with transferable and disciplinary skills.

Assessments techniques should be inclusive to all students by allowing for equal opportunity to demonstrate their potential without disadvantaging one particular group repeatedly (Brown 2005). Variations in assessment types promotes fairness. Brady (2004, p.239) comments that “Over-use of one assessment strategy can favour particular students and result in one dimensional or limited evaluation of student performance”.

Increasing the range of assessment methods used can prevent the re-use of assignments that continuously disadvantaging the same group of students. Repeating the same assessments modes creates a barrier to learning and performance as the same students are disadvantaged over and over again as they lack competencies required for that particular assessment method. For example, only offering exams may make someone who suffers from exam nerves unable to perform well each time therefore their result may not be a reflection of their true ability, as they are only able to demonstrate their learning through one format. Consequently, increasing the scope of assessment reduces the chance of disadvantaging certain students, and increases the opportunity to test a range of abilities.

This further results in increasing the reliability and validity of assessment methods as the same work method is not being repeatedly produced. Arguably, this could encourage an efficient use of time as marking may be reduced through methods involving peer assessment and automated results which is also economically beneficial.

Conclusion

The method of assessment clearly reflects how well students value the experience. Through carefully selecting the most appropriate method of assessment for a particular module, the likelihood of student satisfaction and engagement rises. This means ensuring that assessment methods are valid assessment, i.e that it measures what it intends to measure. The more valid an assessment method is, the more likely it will effectively evaluate the level of student knowledge.

The content of the assessment should involve authentic tasks to ensure students are sufficiently challenged, to prepare them for their lives beyond the programme. Authentic assessment involves enhancing self and peer reflective skills. Instilling these competencies ensures that students develop employability skills whilst being better prepared for their degree programme as they understand how to fulfil learning criteria’s better.

In addition to meeting learning objectives, the importance of assessment is to be able to assess students of all range of abilities and talents. Increasing assessment variety steers away from using assessment to measure student achievement in grades and numbers. Learning is cultivated over time, and arguably some assessment methods such as the patchwork assignments allow for growth and development whilst providing students the opportunity to express knowledge in their own way. (Dilki, 2003)

Authentic assessments measure the accomplishments of students through using a diverse range of assessment methods to understand the best and most effective study mechanisms for students. This can feedback into helping staff understand the knowledge students possess and the areas for development some of which may be reoccurring. This can then be used to reinforce some aspects of teaching and improve others as well as assessment practices.
References


