Methods of Assessment

Introduction

As a University we are committed to continually enhance our teaching and assessment practices based on evidence of effectiveness for learning. This means supporting the development and introduction of assessment that is meaningful, allows students to build their understanding across their programme of study, and enables them to demonstrate their understanding and skills as well as their knowledge. We are also strongly encouraging the use of smaller pieces of summative assessment that build towards larger ones and/or formative assessment to enable students to practice the skills they will be expected to demonstrate in larger pieces of summative assessment. One outcome of this evolution in our assessment practices will be a reduced reliance on some of our current approaches where there is not a good pedagogical reason for continuing to use them.

Meaningful Assessment:

Meaningful assessment is a form of assessment which involves students conducting 'real world' tasks in meaningful contexts. It is often presented as a continuum; at one end are work-based assessments completed in (usually) simulated 'real world' settings, and at the other end is an applied question in a 'traditional' exam.

One way to think about meaningful assessment is to consider what we want our students to be able to do with the knowledge/skills they gain from our teaching, and what they would likely do with that/those knowledge/skills in a workplace? We can then use an assessment that will enable them to demonstrate similar knowledge/skills so that they are emulating what they will do later, rather than using assessment to only test their recall.

Specifically, consider the following questions to enable you to create meaningful assessment:
- Why are you teaching your students this 'content'?
- What is it you want them to know/learn/understand/be able to do?
- How could they prove to you they 'get it'?
- How would they show you in a work-environment that they are using this knowledge/understanding?
- How does this course and this assessment fit into the programme of your students' learning, build on their current skills, and prepare them for future assessments?

The answers to these questions will help you to think about assessments you might use.

Adapting Assessments for Your Context:

The table that follows provides examples of methods of assessment you might want to consider using with your students for formative[1] or summative[2] assessment, or both. They are arranged alphabetically. When reading through this list, please consider which of these methods will allow your students to demonstrate the Intended Learning Outcomes for your course and how you might use formative (or small pieces of summative) assessment to support your students' development should you choose to use one of these other methods. The method you choose **will** need to be

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[1] Formative assessment is work students do that helps them prepare for a summative piece of assessment. It should allow them the opportunity to demonstrate the required skills / knowledge that they will need for their summative assessment. Formative assessment is a 'no stakes' piece of work that allows students to reflect on their learning. It may be graded but the grade will not be used to calculate part or all of the final grade for the course.

[2] Summative assessment is work that is graded, contains feedback on learning and contributes to the final grade for the course and in so doing, towards the progression threshold or degree outcome.

adapted for your context (subject/requirements/students' experience/etc). The following examples hopefully show how a small change in emphasis can result in more meaningful assessment and test different skills.

Examples of adaptation:

1. <u>Dentistry (D)</u>: The original assessment was to write a researched and referenced *essay* about a new toothpaste. The adapted and more meaningful assessment was to write a researched and referenced ***information leaflet*** about a new toothpaste for the general public.
2. <u>English Language and Linguistics (EL&L)</u>: The original assessment was to *critique* an act of parliament (AoP). The adapted and more meaningful assessment was to ***write*** an AoP.

Whilst both these examples might, at first, appear simplistic, the changes create assessments that test more than *can you research and write something* (D) or *can you critique something* (EL&L). Instead they become *can you research a topic and then communicate your research to a specific audience* (D) and *can you use your understanding of a well-written AoP to create your own* (EL&L). These changes test a student's ability to ***apply*** what they have learned in a more 'real world' situation, so creating more meaningful assessment.

It is also worth noting, that formative assessment does not necessarily need to mimic the summative assessment, but it does need to create opportunities to demonstrate key aspects assessed in the summative work. For example, if the summative piece of work is an essay, the formative work does not need to be a similar essay but could rather be a smaller, focused task, such as an annotated bibliography, allowing students to demonstrate the research needed for a piece of written work, or a practice introduction giving students the opportunity to learn how to create introductions appropriate for the subject and level.

Assessment Types

Assessment	What does the student do?	What is this useful for/how can this be used?
Abstract	Students write an abstract of a research paper/article within a specified word limit e.g. 300–500 words.	Allows students to demonstrate understanding of a topic, ability to summarise, and practice the skill of good abstract writing.
Advertisement	Students write an advert for a role that they might fill, or that might need filled within a project team	Allows students to consider the skills they need to develop, or that are needed for a particular project/type of work
Annotated bibliographies	Students produce a list of texts, primary sources and internet sites on specified or agreed topics to a particular referencing convention. They annotate these with a commentary, which could include an evaluation of what they have read.	Allows students to demonstrate breadth/depth of reading, understanding of relevant texts, and ability to research.
Articles for different audiences	Students are asked to write on a particular topic(s) to an agreed length in a specific style e.g. a journal, newspaper or leaflet.	Allows students to demonstrate ability to communicate with different audiences and shows how well they understand the topic.
Assessment stations (aka OSCEs)	Most often used in Med/Vet/Dentistry, students move around a series of testing stations being assessed on a number of skills, each for a fixed period of time.	Allows students to demonstrate a wide range of practical skills and knowledge.
Blog	Students are required to keep an individual blog.	Allows students to record progress, write for other audiences, make links to other relevant websites etc.
Brochure	Students are asked to write on a particular topic(s) to an agreed length for a specific audience	Allows students to demonstrate ability to communicate with different audiences and shows how well they understand the topic.
Budget with rationale	Students are asked to create a budget and justify it (note: this could also be a costed business case). Allows students to consider the cost of a project/lab/case work/trip etc etc	Allows students to show their understanding of the costings required for any project and justify why those finances are required.
Case study/analysis	Students are required to work through a case study to identify the problem(s) and to offer potential solutions	Useful for assessing students' understanding and for encouraging students to see links between theory and practice. *Note: case studies could be provided in advance of a time-constrained assessment.*

Chart, graph, visual aid	Students produce a visual representation of data.	Tests a number of skills: understanding of data, understanding useful/correct visual representation of data, understanding of audience who the visual representation is for.
Client report for an agency	Students produce a report on a topic/subject/project/etc for an outside agency	Students demonstrate their ability to communicate the 'important' information to a fictitious client.
Concept maps/cognitive map/web/diagram	Students map out their understanding of (or research about) a particular concept. This can be used as a precursor to a larger piece of work (e.g. as formative work for summative work later)	This is a useful to provide feedback to students on their work and to staff on students' understanding of the topic.
Create something	Students make or design something, e.g. podcast, prototype, video clip, webpage etc.	Tests students' design/creativity skills and understanding of a brief, of any technical aspects of a 'build' etc
Debate	Students argue different sides in a debate on a specified topic.	Demonstrates research into a topic, ability to argue a case/point, ability to listen to others and counter an argument
Definition	Students create definitions of words/concepts.	Demonstrates understanding. Can also be used as part of group work where a shared glossary is created, and students edit each other's work
Description of a process	Students describe how something works.	Allows students to show that they understand the process
Diagram, table	Students produce a visual representation of data.	Tests a number of skills: understanding of data, understanding useful/correct visual representation of data, understanding of audience who the visual representation is for.
Dialogue	Creating or engaging in dialogue	Allows students to show their understanding and, if the dialogue is aimed a specific audience, their ability to translate their knowledge for that audience
Draft	Students write a draft of a piece of work	This is a great way to support students and check their understanding of both the topic ad the criteria for a piece of assessed work.
Executive summary	Students write a summary of a report, either as a draft of the report, or of an actual report	Students demonstrate ability to summarise the most important points, or 'message' for a specified audience

Fill in the blank test	Students fill in blanks in statements	Demonstrates knowledge of key words/concepts/definitions
Flowchart	Students create flowcharts of processes relevant to the subject/discipline	Demonstrates understanding of how the processes to achieve a proscribed outcome might be achieved
Funding bid	Students create relevant funding bids, sometimes using actual funding bid forms, sometimes a simplified version	Allows students to practice funding applications
Group discussion	Students take part in discussions about a specific topic, often with preparation. Discussion may, however, be to work out what students already know about a topic to then lead to further work/research.	Allows students to practice making verbal arguments or explain concepts/theories
Instructional manual	Students create instruction manuals for another audience – maybe other students, or an outside audience	Demonstrates communication appropriate to the audience which requires solid understanding of a topic/theory/concept
"Introduction" to an essay or report (rather than the full report)	Students can write either just an introduction or are only graded on the introduction as part of the report	Allows students to demonstrate ability to concisely explain the background to a theory/topic/subject/concept
Laboratory reports	Students are required to write a report for a laboratory exercise.	Demonstrates understanding of steps/processes undertaken during experimentation and interpretation of results.
Learning logs	These are lists of activities and outcomes which students check off during a period of learning. For example, students could be asked to indicate competencies which they have practised to a specific level during a work placement.	Allows students to show they have completed tasks required of them and may include reflection on those tasks.
Letter to the editor	Students write a letter to the editor of a newspaper/journal/magazine in relation to a current story or paper	Demonstrates construction of an argument supporting or challenging a current 'story'.
'Live' exercise	Students are provided with an initial dossier of papers to read, prioritise and work on, with a variety of tasks and new information given at intervals throughout the period the exercise runs.	This is usually a problem-solving exercise and often enables multidisciplinary teams (either across years, or across subject specialisms) to work together to achieve an outcome.
Matching test	Students match items. Often used with diagrams and series of labels, or with matched statements. Matching can be simple or complex.	Students show that they know elements of (for example) structures, or requirements. May also include relevance of matched items

Materials and methods plan	Students draft a plan for the materials and methods they will use, or would use, in a practical setting	Demonstrates planning for practical work
Mathematical problem	Students solve mathematical problems	Demonstrating ability with formulae, mathematical processes etc.
Media profile	Students are asked to use pictures or headlines from newspapers and magazines to illustrate the public perception/profile of a particular aspect of the subject. They can also write responses.	Students analyse the public perception of a topic/theory/project etc. Useful for considering accuracy of reporting (fake news) etc.
Memo	Students write a short piece explaining a concept/theory etc	Students demonstrate ability to summarise, communicate essential points and show that they understand these.
"Micro-theme" (a tight, coherent essay typed on a 5x 8 note card)	Students write a very short piece explaining a concept/theory etc	Students demonstrate ability to summarise, communicate essential points and show that they understand these.
Mini-practical	This involves a series of mini practical sessions. Can be conducted under timed conditions.	Creates the potential for assessing a wide range of practical, analytical and interpretative skills
Multimedia or slide presentation	Students create a presentation about a concept/theory/project etc	Demonstrates communication skills and understanding of key points of concept/theory/project etc
Multiple-choice test	Can be useful for diagnostic, formative assessment, in addition to summative assessment.	Well-designed questions can assess more than factual recall of information.
Narrative	Students write a narrative piece about a concept/theory/project etc	Demonstrates ability to create a narrative and to write for a specific audience
News or feature story	Students write a news/feature about a concept/theory/project etc	Demonstrates ability to write in style and for a specific audience
Notes on reading	Students write short notes on a reading covering key elements of that reading, usually for a specific purpose.	Demonstrates ability to summarise, to identify key points and to create useful notes
Observation	Students are observed whilst undertaking some form of 'performance'. This is commonly used in teaching classroom practice and laboratory work.	Students demonstrate proficiency with practical skills
Online discussion boards	Students are assessed on the basis of their contributions to an online discussion for example, with their peers; this could be hosted on a virtual learning environment (VLE).	Students demonstrate engagement with the topic and with their peers

Open book exams	Students have the opportunity to use any or specified resources to help them answer set questions under time constraints.	Removes the over-reliance on memory and recall and models the way that professionals manage information.
Oral report/presentation	Students are asked to give an oral presentation on a particular topic for a specified length of time and could also be asked to prepare associated handout(s).	Can usefully be combined with self- and peer-assessment. Demonstrates communication skills and ability to summarise
Outline	Students prepare an outline, or plan, for any forthcoming piece of work.	Demonstrates ability to summarise and to show thinking/structure
Part-written practical reports	Lab sheets given to students provide some of the write-up in full but leave sections such as error analysis, theoretical explanation etc. for the students to complete.	Supported way to introduce students to new concepts or to remind students of steps/stages in a practical whilst testing their ability with the work.
Patchwork texts	Students write a number of small pieces of work ('patches'), which they then have to later 'stitch' together in a reflective commentary. The patches and the tasks upon which they are based are discrete and complete entities in their own right.	Allows students to show that they understand each element and so enhances understanding of the content as a whole. Spreads assessment across a course rather than relying on high stakes assessment
Performance	Students are required to give some form of performance, e.g. concert, play, dance, poem, choreography etc.	Demonstrates ability in that aspect of performance
Personal letter	Often instigated as a letter to next year's students, or to their peers.	Supports students to reflect on what they do, or do not, understand.
Plan for conducting a project	Students write a project plan before undertaking the work	Ensures students know what they need to do to complete the project. Provides opportunity for support/feedback, particularly for students who are less confident
Portfolios / e-Portfolios	Students provide evidence for their achievement of learning outcomes; these commonly incorporate a reflective commentary.	Allows students and staff to keep track of completed work and to reflect on, or provide support for, achievements throughout a course.
Poster	Students are asked to produce a poster (either 'real size or as a PowerPoint file) on a particular topic.	Can be used individually or in groups to assess a range of activities
Problem sheets	Students complete problem sheets, e.g. on a weekly basis.	This can be a useful way of providing students with regular formative feedback on their work and/or involving elements of self- and peer assessment

Question banks	Students are assessed on their ability to produce a certain number of questions on a topic. This helps students to recognise what they do and do not understand about a topic. PeerWise is one piece of software used for this at the University of Glasgow (https://peerwise.cs.auckland.ac.nz/)	Ensures students understand the topic they write the question about. Can be useful for students for revision too.
Reflective diaries	Students record their learning over a period of time, with an additional reflective commentary which could support the development of an action plan.	Reflection can support a student to understand how well they are meeting the learning outcomes and what they need to do to improve
Regulations, laws, rules	Students identify and (perhaps) comment on the relevant regulations (etc). Or they write their own.	Enables students to understand the context/framework relevant to them.
Research project	Students undertake a research project individually, or in groups.	Students can demonstrate practical, analytical and/or interpretative skills as well as knowledge and understanding.
Research proposal	Students write a proposal for a research project. This may include a proposal for funding	Ensures students know what they need to do to complete the research. Also provides opportunity for support/feedback, particularly for students who are less confident
Review of exhibit	Students review an exhibit for a specific purpose. It could be (for example) the history of the object, or the science or a critique of the exhibit, or how the exhibit is used.	Can be used in many ways, dependent upon the purpose. Tests ability to communicate, to create an argument, to think and write about a subject form a different perspective etc
Review of website/journal article	Students write an account or make an oral presentation reviewing a website/article (or similar).	Can include an evaluative element to demonstrate depth of reading and level of understanding in concise formats
Role play	This is traditionally a 'performance' done in pairs/as a group. However, students could write or give a presentation taking on a particular role, e.g. a journal reviewer/editor, consultant, art critic etc.	Encourages students to see things from a different perspective and to argue/discuss from that role.
Seen exams	Students are provided with the questions to be answered in a time-constrained context in advance. Alternatively, the examination topics may be released in advance, but the specific questions are unseen until the exam.	Removes some of the anxiety of unseen exams and the ability to simply reply on recall, enabling preparation.

Selective or sampling report	Students are asked to either write specific sections of a report (e.g. methods section) or write practical reports in full but know in advance which elements of the report will be assessed	Allows students to develop skills in one area of report writing at a time.
Short answer questions	Students answer question with short written responses.	Useful to assess a wide range of knowledge/skills across a module. Often recall-based which, occasionally, may be essential in some subject areas.
Simulations	Text or virtual computer-based simulations are provided for students who are then required to answer questions, resolve problems, perform tasks and take actions etc. according to changing circumstances within the simulation.	Useful for assessing a wide range of skills, knowledge and competencies.
Statement of assumptions	Students write the assumptions they need to make, or the assumptions they are making, before continuing with a piece of work.	Supports students to consider how they think about a concept/theory/project etc and to help them to understand how assumptions can impact on a successful outcome.
Wiki	Students create a wiki, usually in groups, to explain concepts	Creating a wiki page requires understanding of the topic and of how to communicate that understanding to an audience.

Sources:

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