Best Practices in Alternative Assessments

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Best Practices in Alternative Assessments

A good post-secondary education facilitates numerous kinds of learning that includes acquiring factual knowledge, professional skills, and skills of application, such as critical reflection, problem solving, writing, conceptualizing, collaboration, creativity, civic and global learning, and reasoning. In order for an assessment, usually in the form of an assignment or a test, to be valid, it should measure the skills or knowledge that you have planned for your students to learn. However, many university courses still rely heavily on a narrow range of assessment tools that typically ask students to memorize large amounts of content without needing to apply it (Queen's University Centre for Teaching and Learning, n.d.).

Besides providing important information to the instructor about the nature of student progress in terms of breadth and depth of learning (Queen's University Centre for Teaching and Learning, n.d.), assessments can guide the way that students choose to learn. Biggs argues that what and how students learn depends on how they think they will be assessed (1999, p. 141). This means that in most cases, students will only focus on learning the skills that will permit them to do well in the class. If the only forms of assessment tools used in the class are tests or exams, the student will memorize the factual information that they need to know in order to get a good grade, forgetting much of the factual information a week later (Mazur, 2015).

In this issue of *Best Practices* we will review ways that alternative assessments, also known as authentic assessments, can be used to improve student learning.

Alternative or Authentic Assessments

The traditional form of assessment in the post-secondary course is a mid-term or final or exam. This type of assessment often fails to assess deeper forms of learning. Carefully designed assessments, on the other hand, not only evaluate what students have learned, but can motivate students in their approach to learning, helping them develop thinking and problem-solving skills, and allowing them to assess their own understanding of the course content (Ibid).

This is where alternative assessment or authentic assessment, comes in. Authentic or alternative assessments, meaning an alternative to standard tests and exams, provide a true evaluation of what the student has learned, going beyond acquired knowledge to focus on what the student has actually learned by looking at their application of this knowledge (Indiana University, n.d.). Alternative forms of assessment can allow you to see what students can and cannot do, versus what they do and do not know. They tend to evaluate applied proficiency rather than measuring knowledge (Brigham Young University, n.d.), allowing for problem solving

and reflection, rather than merely providing facts as answers to specific questions (Indiana University, n.d.).

Authentic or alternative assignments typically require students to make a judgement about what information and skills they will need to solve a given problem. They ask students to answer essential questions in the discipline by using knowledge in similar ways to professionals in the field. They can often be characterized as real-world situations with accompanying real-world constraints. Alternative or authentic assignments should involve written and performative measures so that students can develop meaningful and applicable skills, and advance their knowledge of the "how" over that of the "what" (Ibid). These types of assignments are also meant to help develop disciplinary behaviors in students, making new connections between existing skills

Traditional Assessment versus Alternative Assessment

Traditional Assessment	Alternative Assessment	What Makes it Authentic
Requires right answer	Requires high-quality performance or product, along with justifications of decisions.	Students must be able to think through why they made decisions that resulted in the final product.
Questions must be unknown to students in advance	Instructions/questions/purpose must be known to students in ad- vance.	Tasks that are to be judged should be known ahead of time. Rubrics should be provided.
Disconnected from the real world	Tied to real-world contexts and constraints. Requires students to solve realistic problems.	Task is similar in nature as to what would be encountered by a real-life practitioner.

Isolations of skills, focus on facts	A range of skills/knowledge need to be integrated in order to solve a problem.	Tasks are multi-step and multifac- eted.
Easily scored	Includes complex tasks for which there may not be a right answer.	Meaningful assessment and feed- back is emphasized.
"One shot" approach	Iterative in nature.	Knowledge and skills are used in more than one way.
Given a score	Opportunity to provide diagnostic feedback.	Designed to give practical experi- ence and improve future perfor- mance.

Adapted from Indiana University's Tip Sheet, Authentic Assessment, n.d.

Planning Alternative Assignments

Brigham Young University has created a great set of guidelines for constructing alternative assignments:

- Define a concrete and unambiguous instructional outcome/goal that you want to assess. Make sure that you include both subject-matter content and a set of skills/operations that a successful student would exhibit.
- Define what can be assessed through performance assessment, and what can be assessed through objective performance measures.
- Create tasks/assignments that elicit this behavior.
- Decide what kind of guidance you can provide while still allowing students to learn independently.
- Try the assessment out and make revisions as necessary.

Here are some additional useful questions to ask yourself, when you are deciding on what assessment to choose:

- Do you want to test acquisition of content knowledge, or the ability to apply that knowledge?
- Do you want to assess a product that a student has produced, or the process by which they produced it?
- Do you want to assess any of the following: writing ability, speaking skills, creativity, use of technology, or collaboration?
- Are specific time constraints important?
- What kind of content knowledge should students be able to demonstrate and at what level?
- What higher order thinking skills do you want students to develop and be able to demonstrate?
- Which assessment methods would allow you to understand how well students are achieving learning
  outcomes? Did you include more than one assessment type in your course?

Here is a list of alternative assessment strategies that you may want to consider. Please know that this is just a small subsection of the numerous strategies that are available:

Abstract	Flowchart	Podcast
Annotated Bibliography	Group Discussion	Portfolio
Autobiography/Biography Blog	Letter to the editor	Question
Brochure	Memo	Research Proposal
Case Analysis	Methods Plan	Review of book
Cognitive Map	Multimedia presentation or Essay	Review of literature
Debate	Narrative	Statement of Assumptions
Diagram	Oral Report	Summary
Description of a Process Diary	Outline	Taxonomy Thesis sentence Vlog
	Personal Letter	

Adapted from the Queen's University Centre for Teaching and Learning Module on Assessment

Examples of Authentic or Alternative Assignments

Letter/Letter to the editor	- Asks students to write in first person singular perspective, which can be adapted so that they are writing from the perspective of a historical or imagined individu- al, or themselves. - Students are asked to develop a coherent written narrative or statement for the audience. - Requires research, disciplinary knowledge, communication skills, and creativity. - Can be adapted by numerous disciplines.
Memo	- Students prepare a one or two page memorandum or briefing about a topic that is being covered in class. Memo headings can include: background, problem, solu- tions with pros and cons list, final recommendation. - This exercise allows students to practice being concise and direct.
Presentations	- Considered the most readily approachable method of authentic assessment. - Applies positive peer pressure, as it is likely that students will be better prepared when they have to perform before others. - Presentations are an opportunity for the development of professional skills. Stu- dent will need to prepare and rehearse, and develop an appropriate, polished use of visual aids. - Enhances professional verbal, visual, written communication skills. - Can be easily applied to many disciplines, including the sciences.

Poster presentations	- The nature of the poster presentation can vary. It can consist of a summary of a work in progress, or a visual presentation that is equivalent to a term paper. - Headings to be included could be a literature review, description of topics, obser- vations, claim/thesis, and conclusions. - Teaches professional skills for participation in academic conferences.
Portfolio of work	- Students develop portfolios in order to demonstrate the evolution of their work over the course of the semester. - Students are typically asked to compile their best/most representative work and write a critical introduction and brief introduction to each piece.
Proposals	- Asking students to write a proposal for a larger, more heavily weighted project allows students to try out their ideas and set their own goals for learning before actually carrying out their projects.
Policy briefs, Reports	- Policy briefs/reports ask students to address in a professional manner a research question, course of action, decision, or theory that is of interest and importance. This allows students to develop professional skills and become familiar with the specific vocabulary and style of writing in their fields.
Case studies, Simulations	- Case studies present fictional scenarios that include a dilemma that requires problem solving. Students must apply higher order thinking skills in order to evaluate and apply knowledge, and to analyze the problem. - Simulations ask students to play and act out various roles within a case. This can include mock trials, mock city council or legislative meetings, and mock meetings of corporation stockholders or school boards. In simulations, students require background information that they then apply to the role.

Fishbowls	- The fishbowl is similar to a debate. A few students are selected to be in the "hot seat," where they respond to questions, concerns, ideas, about the given topic. Other students ask questions and bring forth counter points. - This type of exercise advances student knowledge and comprehension, as well as improving skills in active listening, critical inquiry, professional communication, presentation, and group discussion.

Adapted from Queen's University Centre for Teaching and Learning Module on Assessment, and Berkeley Centre for Teaching and Learning's "Alternatives to Traditional Testing."

Alternative Assessment as Formative Assessment

Assessment tools can be classified as formative or summative. Formative assessment typically monitors student learning in order to provide ongoing feedback. This approach allows instructors to improve their teaching by being able to clearly see what students are not understanding, and also allows students to improve their learning by identifying where their strengths and weaknesses lie. By monitoring progress, instructors can recognize where students are struggling, and can address them throughout. Summative assessments evaluate student learning at the end of a unit of study, typically, against a benchmark.

Alternative or authentic assessments are typically classified as formative assessments, as these assign- ments are typically in-process evaluations of a student's understanding, learning needs, and academic progress. Tests and exams tend to be classified as summative assessment. Summative assessments are used to assess student learning at the end of the instructional period.

In her post for the University of Waterloo's blog, the Chalkboard, Shannon Dea writes about the benefits of authentic or formative assessments. She states that this approach gives you an opportunity, as an in- structor, to see what the student is doing and how the student is doing. She states that "on this conceptu- alization, good assessments are designed to make salient student capacities, and student demonstration of learning outcomes, rather than to force students to cross a threshold." Asking students to memorize knowledge that they do not apply in any meaningful way does not assist them in developing higher order thinking skills. In Dea's words, a true/false test does not give insight into how a student is doing. It just tells you which of your students is good at true/false tests.

The chart below, adapted from the Assessment Module created by the Queens University Centre for Teaching and Learning as part of their Teaching and Learning in Higher Education course, outlines the benefits and limitations of formative and summative assessments.

Formative	Summative
- Used throughout learning process - Provides iterative feedback - Dialogue based, may be ungraded - Identifies gaps and misunderstandings in the learning process - Demonstrates evolving understanding of a topic - More valid than conventional tests, especially for higher order thinking skills - More interesting to students and thus more motivating - Can assess more clearly what students have and haven't learned - Process can be costly in terms of time, effort, equipment, materials, facilities, or funds. - Rating process is sometimes more subjective than traditional exams	- Used at the end of a learning process - Evaluates learning against a benchmark or standard - Provides a numeric grade that summarizes how much a student has learned - Efficient to grade - No feedback on the learning process itself - Typically high stakes, making up a significant portion of the grade - Information from summative assessments can be used formatively as well, in that both students and faculty can use it to guide their efforts moving forward

Adapted from the Queen's University Centre for Teaching and Learning Module on Assessment, and Brigham Young University's "Using Alternative Assessments."

While summative evaluation is necessary and should not be disregarded, thought should be given to how it can be used to pinpoint student weaknesses and identify ways to improve course content or instruction (Carnegie Mellon University, n.d.). According to the Yale Centre for Teaching and Learning, summative assessments, which are almost always formally graded and heavily weighted, should be used in combina- tion with formative assessments. As an instructor, you can consider a variety of ways to do this, including a combination of assignments.

Rubrics

A key to successful assessment is giving students a clear understanding of what the expectations are for their work. This is especially important for alternative assessments. Rubrics, especially those that are given alongside an assignment description, are a great way of guiding students towards success. They can also be used to provide feedback to students, strengthening the formative component of any assessment method.

What is a rubric?

Rubrics are scoring tools that describe performance expectations for students as set out by the instructor. They can be used for all assignment types. They are usually comprised of four components:

1. A description of the assignment/assessment
2. Criteria that will be assessed
3. Descriptions of what is expected for each assignment component
4. Performance levels indicating mastering of various components. A well-designed rubric will give a substantive description of the expected performance levels.

There are two types of rubrics: holistic and analytic.

- Holistic rubrics provide a single score rating the overall perception of the student's performance. This approach is especially useful when a single attribute is being examined. This type of rubric allows for quick scoring, but no detailed feedback.
- Analytic rubrics provides scores for various criteria, gives detailed feedback, and helps to ensure that feedback is consistently given across students.

A carefully designed rubric can offer a number of benefits to instructors and students.

Instructor Benefits	Student Benefits
- Reduce the time needed for grading - Identify strengths and weaknesses for students, and across the class - Identify patterns in student learning, allowing instruction to be adjusted accordingly	- Improve understanding of instructor expectations - Provide specific feedback to improve performance - Identify strengths and weaknesses, and adjust the latter accordingly

● Reduce uncertainty and improve consistency in grading	

Adapted from Carnegie Mellon University's Eberly Center's "Creating and Using Rubrics," and Yale Uni- versity's Center for Teaching and Learning handout "Creating and Using Rubrics."

Creating a Rubric

Yale University's Center for Teaching and Learning has created a set of recommendations that you can use in order to create an effective rubric.

- Develop a clear definition of the purpose of the assessment task, and its goals.
- Decide on whether you would like to use a holistic or analytic rubric, depending on the goals you want to achieve.
- Define the assignment criteria. You can base these on your learning outcomes and goals as well. As with assessment design, consider what skills and knowledge is necessary for successful completion.
- Define the scale you will use in order to measure performance. Provide a description of each level.
- Test the rubric and revise it as necessary.

For more information on designing rubrics, download our issue of Best Practices on [Creating Effective Assessments](#).

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