What are good assessment practices?

Linda Suskie, Towson University, Maryland

Abstract

While perfectly accurate strategies to assess student learning aren’t possible, because of factors that we can’t control such as a student's health, we can maximise the quality of our assessments by addressing six characteristics of 'good' assessment that we can control to a certain degree. Good assessments are useful; they give reasonably accurate, truthful information; they are fair to all students; they are ethical; they are systematic; and they are cost-effective. This paper gives practical suggestions for maximising and documenting the quality of our assessment strategies.

Regardless of what or how we are assessing, our assessment activities should conform to six principles of good practice.

Good assessments:
- give us **useful** information
- give us **reasonably accurate, truthful** information
- are **fair** to all students
- are **ethical** and protect the privacy and dignity of those involved
- are **systematised**
- are **cost-effective**, yielding value that justifies the time and expense we put into them.

This paper discusses each of these principles.
Create useful assessments

Perhaps the most important assessment principle is that assessments be useful. If an assessment doesn't help improve teaching and learning activities, why bother with it? In order to be useful, assessments must correspond to your key learning goals and your curriculum. No one strategy is right for every course or programme in every institution.

To ensure the usefulness of your assessments, periodically evaluate your assessment programme and ask yourself whether your assessments are giving you useful information. If a particular assessment is not helping you or your students, stop doing it. Similarly, if a particular survey question isn't providing information that you can use to help make decisions about your programme, stop asking it. And periodically compare your assessment tools against your learning goals to ensure that they continue to align.

Create accurate, truthful assessments

What is a good assessment? More than anything else, it is an assessment that gives us truthful information; it tells us what our students have truly learned. Students who have truly learned what we want them to will do well on a good assessment; students who truly have not learned what we want them to will not do well on it.

Unfortunately, it's not possible to determine with complete confidence exactly what our students have learned. We can't get inside their heads to find out what they truly know and what they don't. The best we can do is to look at samples of their behaviour - what they write, produce, say and perform - and from those samples try to estimate or infer what they truly know. Even under the best of circumstances, making an inference from these snapshots of behaviour is bound to be at least somewhat inaccurate because of what psychometricians call 'measurement error' - fluctuations in human performance that we can't completely control.

We can't control, for example:

- whether a student is ill on the day they complete an assignment or takes a test
- whether a student is preoccupied with an argument they've had and therefore isn't focusing sufficiently to do their best
- memory fluctuations (we all periodically 'blank out' on key names and facts)
- luck in whether a particular assignment or test question focuses on something a student knows well (we all learn some aspects of a subject better than others)
- luck in guessing on multiple-choice questions or
- mental 'set' (sometimes we have flashes of insight; sometimes we seem inexplicably in a mental rut).

While we thus can't create assessments that will give us absolutely accurate information about what students have learned, we must strive to make them sufficiently truthful that we will have confidence in our findings and can use them with assurance to make decisions about goals, curricula and teaching strategies. The following approaches will help increase the accuracy and truthfulness of assessment strategies.
- **Start with clear statements** of the most important things you want students to learn from the course or programme.

- **Teach what you are assessing.** Purposefully help students learn the skills needed to do the assessment task.

- Because each assessment technique is imperfect and has inherent strengths and weaknesses, **collect more than one kind of evidence** of what students have learned. If you are assessing learning across an entire programme, for example, rather than only give students a culminating examination, you might also look at samples of papers they've written and perhaps internship supervisors' ratings of their skills.

- Before creating an assignment, **write a rubric**: a list of the key things you want students to learn by completing the assignment and to demonstrate on the completed assignment.

- Likewise, before writing test questions, **create a test 'blueprint'**: a list of the key learning goals to be assessed by the test and the number of points or questions to be devoted to each learning goal.

- **Make assignments and test questions crystal clear.** Write them so that all students will interpret them in the same way and know exactly what you want them to do.

- **Make sure that your assignments and test questions clearly relate to your key learning goals.** Each test question, for example, should clearly correspond to the learning goal you've identified for it in your test blueprint. A writing assignment intended to assess how well students organise an essay shouldn't be graded primarily on grammar and spelling.

- **Ask colleagues and students to review drafts** of your assignments, rubrics and (using former students) test questions to make sure they're clear and appear to assess what you want them to.

- **Try out surveys and similar tools** with a small group of students before using them on a larger scale. Check students' responses to make sure they are giving answers that make sense. Ask them if they found anything unclear or confusing. Ask some students to 'think out loud' as they answer a test question; their thought processes should match those you intended.

- Collect enough evidence to **get a representative sample** of what your students have learned and can do. Collect a sufficiently large sample that you will be able to use the results with confidence to make decisions about a course or programme.

- **Score student work fairly and consistently.** Before scoring begins, have a clear understanding of the characteristics of meritorious, satisfactory and inadequate papers. Then use a rubric to help score assignments, papers, projects etc consistently.

- **Use assessment and quality assurance results appropriately.** Never base any important decision on only one assessment. (Failure to adhere to this maxim is one of the major shortcomings of many high-stakes testing programmes.) Assessments shouldn't make decisions for us or dictate what we should teach; they should only advise us as we use our professional judgment to make suitable decisions.

- **Evaluate the outcomes of your assessment efforts** and revise your strategies to address any shortcomings.
How can the quality of assessment and quality assurance methods be documented?

Should you document evidence of the quality of your assessment methods? This depends on how the results may be used. An assessment used to make minor curricular modifications does not need as much evidence of its quality as one used to help determine who graduates, whether expensive modifications should be implemented, or whether a programme should be terminated, or whose findings are likely to be challenged.

Obviously, the more rigorous and extensive your evidence, the more compelling it is, but also the more time-consuming it is to collect and evaluate. Be forewarned that, no matter how extensive your efforts to document the quality of your assessment strategies, you can never prove that your assessments are accurate and truthful; you can only collect evidence that your assessments appear to be accurate and truthful. Someone who wants to dispute your findings will always be able to poke a hole in your assessment strategy.

Should you decide to document the quality of your assessment activities, here are some ways to do so.

- **Keep records of everything you've done to maximise assessment quality**, including reviews of your assessment tools by others, tryouts of your assessment strategies, rubrics used to score student work, blind scorings by your colleagues and other strategies discussed in the previous section.

- **Use other kinds of assessments to corroborate your findings**. A student whose writing sample receives a high score, for example, should also receive a high score on a published writing test and a high rating from her professor on her writing skills.

- **See if results fall in appropriate patterns**. Students at the end of a programme should generally do better on an assessment than students at the beginning, while students with high grades should generally do better on an assessment than students with low grades. Some results should predict current or future performance; scores on a pre-calculus test, for example, should predict calculus grades at least somewhat accurately. And sometimes students should perform differently by major. Physics majors, for example, may score higher on a quantitative reasoning assessment, on average, than English majors.

These are only a few of the many approaches that can be taken to appraise and document the quality of assessment measures. To learn more, ask a psychology or education staff member for information on reliability and validity.

**Create fair assessments**

A fair assessment is one in which students are given equitable opportunities to demonstrate what they know. This does not necessarily mean that all students should be treated exactly the same. Equitable assessment means that students are assessed using appropriate methods and procedures, which may vary from one student to the
next depending on the student's prior knowledge, cultural experience and learning style. For example:

- Marla is not a strong writer but great at visualising concepts. She will better demonstrate her understanding of a complex concept if she can draw a diagram rather than write an explanation.
- Robert's culture values collaboration and he learns more from working with others than by studying alone. He will better demonstrate his understanding if he can work with others on a group presentation rather than make a solo presentation.
- Janice is not a good test taker but very creative. She will better demonstrate her understanding if she can create a video explaining a complex concept rather than take a test.
- Jason was home-schooled in a home without a computer, so he's still insecure on computers. He will better demonstrate his understanding on a paper-and-pencil test than on a computer-based test.
- Lisa attended a school that stressed rote memorisation and drill. She will better demonstrate her knowledge of American history on a fill-in-the-blank test than in a term paper that requires critical thinking skills.
- Dan has poor test-taking skills. If question 2 stumps him, he'll likely spend the whole testing period on that question and never answer the remaining questions. He will better demonstrate his understanding by writing a term paper than by taking a multiple-choice test.

Creating custom-tailored assessments for each student is, of course, largely impractical, but we can work toward assessing students equitably by providing a variety of assessment venues. Instead of assessing students solely through multiple-choice tests or solely through writing assignments, assess them using a combination of tests, writing assignments and other projects. Students might convey the essence of a novel's protagonist, for example, through a diagram, video or oral presentation rather than through the traditional essay.

Create ethical assessments

A number of professional organisations engaged in the assessment of human performance have developed statements of ethical standards. Two pervasive themes in these statements are protecting the privacy and dignity of those being assessed and using results in a fair and appropriate manner. Virtually all these statements agree that ethical assessment programmes:

**Protect the privacy of those who are assessed.** Take appropriate security precautions before, during and after you conduct an assessment, and protect the confidentiality of individually identifiable information. Password-protect computer files with identifiable information and store paper records with identifiable information in locked file cabinets. If several people are reviewing samples of student work or accessing a computer file, removing information that identifies individuals may be a wise precaution.

While it's important to protect student privacy, staff must have sufficient information to be able to do their jobs and this can often involve sharing identifiable information.
Some departments, for example, periodically hold staff meetings to discuss the progress of each of the students on their programme. Staff also consult with their colleagues about their students less formally; a staff member concerned about a student's slipping performance might consult with the student's advisor for ideas on how to help the student get back on track. Staff are simply carrying out an important part of their responsibilities when they hold such conversations, and considering identifiable assessment results can make the conversations more fruitful.

Keep students informed about the nature and purpose of each assessment. Students should be informed as early in their programmes as possible, in writing, of graduation or programme completion requirements beyond successful completion of coursework, such as compiling a portfolio, completing a survey, participating in a focus group or taking a comprehensive examination. These statements should also make clear if, in order to progress or graduate, students are expected to earn a minimum score on a special assessment such as a portfolio or published test.

Minimise potential bias. Obviously we wouldn't want to use an instrument with stereotyping or offensive material. But an unbiased instrument goes farther than that; it describes activities that are equally familiar to all and uses words that have common meanings to all. An item on a quantitative skills test that asks students to analyse American football statistics wouldn't be fair to women, for example, as they're typically less familiar with the sport than men.

A good way to detect potential bias is to ask yourself, 'If someone wanted to see the exact opposite of the results that I'm hoping for, would they conduct the same assessment in the same way?' You're probably hoping, for example, that your assessments will demonstrate that your students are learning all kinds of important things. Imagine (however difficult this may be for you!) that someone is convinced that your course or programme is of very poor quality and expensive to boot and wants it eliminated. What strategies to assess student learning might you both conceivably agree on?

To ensure further that your assessments are equitable and don't favour students of a particular gender or background, ask colleagues and students of varying backgrounds to review drafts of your assignments and test questions. And engage and encourage your students; the performance of some is greatly influenced by positive contact with staff.

Give appropriate attribution to the work and ideas of others. Don't use items from someone else's test or survey in your own assessment instrument, for example, without obtaining permission from the author or copyright holder and acknowledging the contribution.

Make the following information available to anyone considering your assessment results.

- The exact wording of assignments and questions given to students.
- How the participating students were selected and any evidence that the students who participated are a representative, unbiased sample of the students you wanted to assess.
- The number of students or student works in the sample, the number actually participating, and the participation rate. (For example, 'A random sample of 50 seniors was invited to participate in exit interviews. Twenty students or 40 per cent of those invited participated'.)
Information on the precision of the results. (For example, 'Eighty-two percent of our alumni are satisfied with their education here, with an error margin of plus or minus four per cent'.)

A fair, objective presentation of the results, both intended and unintended, without censorship.

Qualifiers and caveats regarding the conclusions drawn from the results. (You might, for example, want to caution your audience about a low survey participation rate, a test question that you've learned was misinterpreted by many students, or that male students are underrepresented in the group of papers you evaluated.)

**Discourage others from making inappropriate interpretations** or otherwise false or misleading statements about assessment or quality assurance results.

**Promote the use of multiple sources of information** when making any major decisions.

**Create systematised assessments**

Good assessments are not once-and-done affairs. Assessments should be conducted on a regular basis to see if course and programme improvements are having their desired effect and to make sure past performance levels haven't slipped.

Programme assessments should be repeated fairly frequently, not just once every five or 10 years. Less frequent assessments can take more time in the long run, as there's a good chance that no one will remember, find the documentation for or understand the rationale behind an assessment done several years ago, which means spending far more time planning and designing the new assessment - in essence, reinventing the wheel. Imagine trying to balance your cheque book once a year rather than every month (or your students cramming for a final rather than studying over an entire term), and you can see how difficult and frustrating infrequent assessments can be compared to those conducted routinely.

**Keep assessment efforts cost-effective**

The business world's concept of 'return on investment' applies to assessment and quality assurance activities. Assessments should yield dividends - namely more effective learning experiences for students - sufficiently worthwhile to justify our investment of time and resources. Assessment is like putting together a jigsaw puzzle when we don't have enough time to assemble the entire puzzle. We want to put together just enough pieces to get a reasonably good sense of what the completed picture would look like.

Here are some strategies for keeping assessment manageable.

- **Focus your assessments.** It's better to do a few assessments well than many poorly. Concentrate on assessing just a few key learning goals rather than every goal of your course or programme.
- **Make maximum use of existing information** before creating or purchasing new tools.
- **Focus on those assessment strategies that give the greatest dividends** for time and resources invested.
• Limit the volume of assessment information you collect from students. Perhaps a one-page chart will give you just as much information on students' analysis skills as a three-page essay. Perhaps a two-page abstract will give you just as much information on students' writing skills as a 20-page term paper.

• Use rubrics - they really speed up the process of evaluating student papers and projects.

• Stop doing something else. Consider dropping your mid-term examination to give you more time to assess student projects. Consider moving some of your more straightforward lectures to handouts that students read on their own, creating more class time for students to collaborate on assignments and for you to review assignments with individual students.

• Look at samples rather than censuses of student work. If students maintain journals in your course, for example, spot check a random sample of them each week rather than read them all. If all students in a programme complete a senior thesis, evaluate just a sample of them for writing and critical thinking skills.

• Stagger your assessments. Stagger the due dates for assignments so each class's assignments are turned in a few weeks apart and you’re not overwhelmed with papers at any one point in the term. Similarly, stagger programme assessments across a multi-year period. A three-year assessment cycle might include an examination of student portfolios every first year, a survey of alumni every second year, and exit interviews of graduating students every third.

• Adapt your assessment schedule to meet your evolving needs. Suppose that focus groups show high levels of student satisfaction but senior theses show poor organisational skills. You may want to put the focus groups on a back burner, conducting them only once every three years just to make sure student satisfaction isn’t slipping, and begin reviewing theses every term to monitor the effectiveness of your efforts to strengthen organisational skills.

We’re not talking dissertation-quality research here; establish realistic expectations for quality. Assessment is a form of action research, a branch of research that, while disciplined and systematic, is inherently imperfect, so don’t expect perfection. While it would be wonderful if every assessment project were designed to meet standards for publication in peer-reviewed research journals, realistically most staff don’t have the time - or interest - to do this. Aim not for replicable, generalisable research but for results that are simply good enough to use with confidence to make decisions about teaching and learning in your course, programme or institution.

Recommended reading


Campbell D T and Fiske D W (1959) Convergent and discriminant validation by the multitrait-multimethod matrix, *Psychological Bulletin*, 56 (2) 81-105


www.ncte.org/about/over/positions/category/write/107610.htm

Conference on College Composition and Communication (2001) *Guidelines for the Ethical Treatment of Students and Student Writing in Composition Studies*, National Council of Teachers of English, Urbana

www.ncte.org/about/over/positions/level/coll/107670.htm


www.ncrel.org/sdrs/areas/ issues/content/cntareas/math/ma1newst.htm [Accessed 2 June 2003]


Shavelson R J and Huang L (2003) Responding responsibly to the frenzy to assess learning in higher education, Change, 35 (1) 10-19


Suskie L (2000) Fair assessment practices: Giving students equitable opportunities to demonstrate learning, AAHE Bulletin, 52 (9) 7-9


Note: This paper is adapted from Chapter 2 of:
Reprinted with permission of the publisher