

Direct Versus Indirect Assessment of Student Learning

It is important to understand the distinction between direct and indirect evidence of student learning. Direct evidence of student learning is tangible, visible, and measurable and tends to be more compelling evidence of exactly what students have and have not learned. This is because you can directly look at students' work or performances to determine what they've learned.

Indirect evidence tends to be composed of proxy signs that students are probably learning. An example of indirect evidence is a survey asking students to self-report what they have learned. This is evidence that students probably are learning what they report to have learned, but is not as compelling as a faculty member actually looking at students' work. It is not uncommon in students' self-reports to either inflate or undervalue what they have actually learned.

Distinguishing Between Direct and Indirect Assessment

While it is easy to distinguish between what is direct evidence of student learning and what is indirect, some evidence of learning is less clear. For example, peer reviews of student work. While students are actually submitting work to demonstrate what they have learned, a faculty member may not ever see this work or have an opportunity to evaluate it. Would this be an example of direct or indirect evidence? There are a few considerations that can be helpful in determining whether an assessment is direct or indirect evidence of student learning.

Considerations

1. Does the assessment measure the learning or is it a proxy for learning?

Direct Evidence: Students have completed some work or product that demonstrates they have achieved the learning outcome. Examples: project, paper, performance

Indirect Evidence: A proxy measure was used, such as participation in a learning activity, students' opinions about what was learned, student satisfaction, etc. Examples: teaching evaluations, surveys asking students how much they think they learned, course grades

2. Who decides what was learned or how well it was learned?

Direct Assessment: a professional makes a decision regarding what a student learned and how well it was learned. Examples: faculty evaluated papers, tests, or performances

Indirect Assessment: the student decides what he or she learned and how well it was learned. Examples: surveys, teaching evaluations

Frequently Asked Questions

How are grades indirect measurement of student learning outcomes?

Course grades are based on many iterations of direct measurement. But grades are an indirect measurement of any one course learning outcome because:

- They represent a combination of course learning outcomes; performance on these outcomes are averaged out in a final grade
- They frequently include corrections not related to learning outcomes, such as extra credit or penalties for unexcused absences.

When should direct assessment be used?

Direct assessment is the most effective form of assessment when you are measuring a single learning outcome, objective, or goal. This type of assessment gives you the most clear, compelling, and actionable information when determining, for example, how well your students are developing their writing skills, abilities to reflect critically, or integrate theory into practice.

Is it ever appropriate to use indirect assessment?

Yes. Indirect assessment provides valuable information and is an appropriate and valid form of assessment. A few examples of when indirect assessment is particularly valuable:

1. As a complement to direct assessment methods. Indirect assessment is often an extremely useful tool in combination with direct assessment to offer a more comprehensive view of student learning. Direct assessment may tell you what students learned and how well they learned it, but indirect assessment can give you information about how a student feels about what they know – for example, does that student feel confident in his or her ability to apply the knowledge in the future?
2. In program or curriculum review. Indirect assessment provides valuable insight and feedback of students' views of what they are learning, how programs and services are administered, etc.
3. Peer review of student work. Although peer review is indirect assessment, it is often a useful teaching and learning tool.