Assessment Made Simple

We’ve all heard the assessment terms like knowledge survey, direct assessment, embedded assessment, authentic assessment, formative assessment and it gets really confusing, right? Well let’s simplify it. Instead of trying to remember all of the various terms and definitions related to assessment, let’s simplify it to two terms: Direct and Indirect.

**What is a "direct measure" of student learning?**
Direct measures assess student performance of identified learning outcomes, such as mastery of a lifelong skill. They require standards of performance. Examples of direct assessments are: pre/post test; performance-based test; course-embedded questions; standardized exams; portfolio evaluation; presentation; demonstration; research papers; writing assignments; certification exams; capstone course evaluation.

**What is an "indirect measure" of student learning?**
Indirect measures assess opinions or thoughts about student knowledge, skills, attitudes, learning experiences, and perceptions. Examples of indirect measures are: knowledge surveys; student surveys about instruction; focus groups; alumni surveys; employer surveys; course grades; education statistics like retention/completion.

It is always good to incorporate both types of assessment in your course, discipline, or program but at the very least, you should incorporate **DIRECT** measures of assessment.

**Brake Pad Example**
Here is an example that I like to use when comparing “direct” vs “indirect” assessment. Let’s say I’m teaching a student how to change brake pads for a car. I can either use a direct assessment, which will be a performance-based exam where the student has to actually perform the skill of changing brake pads for a car or an indirect assessment where I use a knowledge survey to ask the student to rate their own ability to perform the skill of changing brake pads for a car.

For the direct assessment, I grade at zero tolerance for error, either the student performed the skill without error and the brake pads functioned correctly or the student made mistakes that need to be corrected and the exam taken again. For the indirect assessment, I ask the student to rate their own ability to change brake pads on a five-point scale (Extremely Confident, Very Confident, Confident, Somewhat Confident, Not Confident).

Now let’s say you’re a customer and you have two students to choose from, one student who passed the performance-based exam or the student who rated himself as “Extremely Confident” at changing brake pads. Who would you choose? If you didn’t have a choice and had the student who only took the survey as evaluation of their work, would you drive your car after he changed your brakes?

Granted, this example is an extreme. But I hope it helps to highlight the reason WHY direct measures of assessment are preferable because it DIRECTLY relates to the learning achieved by a student. This is not to say that indirect measures of assessment are not useful or helpful. But at the very least, we should be using and reporting on direct measures of student learning.