What are Characteristics of a Good Measurement Tool?

Although there may never be a single perfect measure for learning outcomes focused on areas such as diversity, leadership, critical thinking, or global citizenship, it is certainly potentially possible to create a measure or even multiple measures of certain aspects of these constructs. In addition, as departments develop specific disciplinary-based outcomes, there is a possibility that many of these outcomes will reflect elements of the institutional mission. For example, if the institutional mission focuses on critical thinking, it is something that may play out at the department and course levels. Therefore, individual departmental outcomes can and should be linked, where appropriate, to the overall institutional effectiveness plan. Data gathered from across campus, including academic and student affairs, can be used to determine how well the institution is meeting its goals. By using existing data from departments, the entire institution can look at aspects of its mission in an integrated way.

"How do you know when a student has met the outcome? What does that look like?" In many cases, the outcome itself will suggest the measurement tool. For example, if one of the outcomes is that students will use correct referencing style, an obvious measure is a student research paper that includes references. If a student outcome is focused on applying a particular theory to an example, the measurement might be a case study assignment that requires students to use a theory to analyze or develop a solution to the case. These types of assignments probably already exist in at least one course in the department. Faculty might choose to gather several of these into a portfolio, or they might pull individual assignments from particular courses that have a majority of students taking them. Some departments add a specific assignment to several courses in order to gather this information. Other measures that might be available are licensing or certification exams, juried evaluations, or internship supervisor reports. Again, these are the types of measures already embedded in the department's curricular offerings, and they are often direct measures of student learning.

<u>Direct measures</u> of student learning are those designed to explicitly measure what a student knows or is able to do. They use actual student work products for evaluation. Commonly used direct measures include evaluation of:

- Capstone projects or exams
- Culminating experiences (for example, an internship summary or senior thesis)
- Juried review of student projects or performances
- Student work samples (case study responses, research papers, essay responses)
- Collection of student work samples (portfolios)
- Exit exams (standardized or proprietary exams or locally developed exams)

- Pre- and post-tests
- Performance on licensure or certification exams

Please note that grades are not considered to be a good assessment measure of student learning because they do not provide information that is used to determine what was learned and what was not learned. For example, if a student receives a B in her General Psychology course, it is not known what she knows and does not know. That student may have done well in all but one section of the final exam, may have done B work all semester, or may have performed well on all of the content areas but missed some classes and lost points for those absences. This is why grades are not useful assessment measures. However, student work that was used to determine the grade is an excellent assessment tool. The final exam of the research paper for the course is a fine, direct measure of student learning. A review of these makes it much easier to determine what the student learned and, as importantly, what the student did not learn for the purpose of changing instruction and/or curriculum to improve student learning at the departmental level.

<u>Indirect measures</u> of outcomes can provide a great deal of information to the university. Satisfaction surveys, alumni surveys and even overall course evaluations offer information to faculty about how well they are doing in terms of meeting the learning outcomes. Qualitative data provides a great deal of rich and complex information about the learning experience at the university.

Indirect measures of student learning are those that implicitly determine what a student knows or is able to do. Often they focus on how a student perceives her or his own level of learning or satisfaction with some part of her or his education or experience. Some examples of indirect measures include:

- Surveys (NSSE, Alumni, etc.)
- Exit interviews
- Employment or graduate school placement rates
- Retention and graduation data
- Demographics of the student population
- Focus groups