

# ASSESSMENT @ BUCKNELL

*In Brief On...*

## CHOOSING ASSESSMENT MEASURES

The identification of goals and objectives is followed by the selection of appropriate assessment measures. Because each objective may be assessed numerous ways and the results may be used to make curricular decisions, the selection of appropriate measures is vital to a successful assessment process.

### What is an assessment?

Assessments of student learning generally fall into 5 categories.

1. **Discrete data** – graduation rates, employment statistics, etc.
2. **Externally developed questionnaires and attitude instruments** – Freshman and Senior Surveys, National Study of Student Engagement (NSSE)
3. **Locally developed questionnaires and attitude instruments** – department-specific alumni questionnaire
4. **Standardized tests** – MCAT, LSAT, etc.
5. **Embedded/Authentic assessments\*** – assessments that take place in “real-life” situations such as performances, labs, and experiences abroad and address the skills needed to perform outside of the school environment. As part of a course or curriculum these assessments occur with instruction and are often used as instructional methodologies to assess mastery of content as well as higher order skills including critical thinking, problem solving, and decision-making. Grant Wiggins distinguishes authentic assessments as those that “require students to be effective performers with acquired knowledge”. (See previous Assessment Update on Embedded Assessments)

In some cases, the selection of an assessment measure is straightforward. This is usually the case with discrete data and standardized tests. In other cases, discussions of assessment measures raise more questions than they answer.

### What is a “good” assessment?

Stated simply, an assessment is “good” if it appropriately assesses the objective in question. No one assessment, however, is robust enough to stand alone. Ideally, several “good” assessments of the same objective will be included in an assessment plan. Our preference is to avoid relying solely on standardized assessments in favor of a more broad-based spectrum of assessments that include embedded and authentic assessments. There are challenges, however, to designing and implementing embedded and authentic assessments. Best practice in the development of psychological instruments (psychometrics) requires that two fundamental questions be answered: Is the measure valid? Is the measure reliable? Supporting the validity and reliability of a measure was typically an accepted indicator of the value of the measure.

As our notions of assessment expand, reliance on stringent requirements for the support of the psychometric properties (validity and reliability) of assessment measures is waning – not for lack of importance, but for applicability. For some measures that are of interest and are particularly

meaningful (embedded and authentic assessments), reliability and validity cannot always be quantitatively supported. For example, authentic assessments are recommended for their **ecological validity** (validity based on approximations of the real world. Also called face validity) and **practicality** (ease of administration); but establishing reliability is nearly impossible as the situations are dynamic and distinctive. In application, it is the uniqueness of the situation that makes authentic assessment so valuable. Enhancing validity and reliability with these assessments results from designing the assessment appropriately and using the feedback from an assessment cycle to enhance its usefulness.

Examinations of reliability and validity, however, are not to be abandoned in the new era of outcomes assessment. The decision to use external measures (affective scales, student opinion surveys) such as the Freshman Survey, Senior Survey, and National Study of Student Engagement should be made with careful consideration for the reliability and validity of the instrument. In most cases, the psychometric properties of these college-wide surveys have been supported, but it is vital to investigate the rigor and results of the psychometric evaluations. A future Assessment Update will address this topic in more detail.

An answer to the opening question “What is a good assessment”, then, can be followed by another question...”Can reliability and validity **BE** established?” If the answer is no, then consider the quality and suitability of the assessment in light of the objective being assessed.

### Several options exist. Which one should I chose?

The appropriateness of an assessment measure is generally dependent on three things: availability, feasibility, and durability. The following questions are provided to help you determine which of the options will best suit your needs.

1. Is the assessment measure **available**? Does it exist in your discipline? Can it be modified from another discipline for your purposes? If not, can you create/develop it? Do you have the desire/knowledge to do so? Answering “No” to this question would lead to a recommendation to pursue other assessment alternatives.
2. Is the assessment **feasible**? An assessment measure may be available, but the costs of administration may be prohibitive. Before deciding to adopt an assessment measure, consider these questions:
  - a. What are the factors limiting feasibility? Can they be overcome in a reasonable time frame and under current conditions? Would it be possible for future assessment cycles?
  - b. What is the cost (financial and staff time) of using this assessment?
    - i. What will be required of the faculty and staff of my department?
    - ii. Is there a cost associated with obtaining the measure?
3. What is the **durability** of the assessment measure? Is this an assessment that may be used again in the future or used to assess more than one objective?

Answering yes to many of the above questions would indicate the assessment is a good choice. Ultimately, remember that assessments, like goals and objectives, can be changed with each assessment cycle if they are found to be unsatisfactory.

As you investigate and evaluate options, please feel welcome to contact Kathy at 7-1960 or Jerry at 7-3623 for guidance.