

## Assessment 101: Assessment Tips with Gloria Rogers, Ph.D. Can You Please Repeat the Question?

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Most of us have watched quiz shows where contestants are asked a critical question in order to win the ‘grand prize.’ The music in the background is such that the tension is heightened and, as time runs out, the contestants nervously ask the MC to repeat the question. Is it because they didn’t hear the question, or is it that they were unsure of their answer and were stalling for additional time to think?

One thing for sure: The stakes were high and the contestants didn’t want to make a mistake that would cost them dearly. In order to give the “right” answer, it is important to understand the question being asked. However, many of us don’t stop to think about the question we are trying to answer before we dive into the assessment process related to accreditation and program effectiveness. This can create a lot of random activity to collect as much ‘stuff’ as we can with the idea that more is better. What is the question that is being answered and, based on the question, what are the implications for the design of the assessment process?

- Are you assessing individual students or groups of students?
- Are you assessing for formative or summative purposes?
- Are you assessing students or departments/programs?
- Are you interested in demonstrating “value added” or only attributes at the end of a course/program?

The answers to these questions will focus the assessment process and promote the development of both efficient and effective assessment systems. For example, the current ABET *Criteria for Accrediting Engineering Programs* says the following:

**From Criterion 2** Each engineering program for which an institution seeks accreditation or reaccreditation must have in place: (a) detailed published educational objectives that are consistent with the mission of the institution and these criteria (b) a process based on the needs of the program’s various constituencies in which the objectives are determined and periodically evaluated (c) a curriculum and processes that ensure the achievement of these objectives (d) a system of ongoing evaluation that demonstrates achievement of these objectives and uses the results to improve the effectiveness of the program.

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**From Criterion 3** Engineering programs must demonstrate that their graduates have: [A through K]. Each program must have an assessment process with documented results. Evidence must be given that the results are applied to the further development and improvement of the program. The assessment process must demonstrate that the outcomes important to the mission of the institution and the objectives of the program, including those listed above, are being measured.

Given this information, what question are we trying to answer? The *Criteria* indicate that we are trying to determine program effectiveness. This suggests a holistic approach to developing our assessment processes, not an analytic approach. An analytic approach implies that we are examining each individual student to determine competence for the purpose of diagnosing areas needed for his or her improvement.

**When a holistic approach is being used, the focus is on an overall examination of the status of the performance of a group of students.** How would the understanding of this process as a holistic approach affect assessment planning? There are two primary ways:

- First, **every student in every course would not have to be assessed for the purpose of determining program effectiveness.** In fact, some courses and/or students may not be assessed at all. Faculty tend to be more comfortable with classroom assessment because that is where they have the most experience. Program assessment is generally not intuitively different from classroom assessment, but it is different. It would be considered unreasonable for us to give each student in the class the average score for the entire class as a final course we look at the performance of a group of students (average) and make inferences from the data about the effectiveness of the program. In many cases we take only a sampling of students (using appropriate sampling techniques, of course) and may also do the majority of our data collection outside the individual classroom.
- Second, we do not have to assess for every outcome every year. When using a holistic approach, **it is important to remember that the focus is on the program, not the individual student.** If there are 12 outcomes being assessed, focus on a limited set each year. It may be found that there are some outcomes that require more attention than

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others. If so, these may be assessed more frequently to see if interventions that have been put in place are being effective. Other outcomes may be consistently of high quality and may not be assessed as often.

Always remember, **this process has to work for you and not consume you**. Stay focused on the question, while using sound assessment techniques. If the assessment question is framed in terms of “value added,” then additional assessment processes would need to be in place. There would need to be a process to ensure that appropriate assessment data are collected at the beginning of the program, which can be used to compare with data collected at the time of graduation. Those data must allow for making inferences about the added value of participation in the program. It is important to remember that students come to the program at different levels of competency and maturity in some areas of study.

For example, students with good verbal skills may have participated in high school activities such as debate clubs or the school newspaper. These students may already demonstrate excellent communication skills when entering the program and will be less impacted by program offerings in these areas than other students. We need to be comfortable with this fact and recognize that we are comparing the scores of groups of students and not individual students. In developing assessment processes, it is important to remember that **the quality of the assessment will be reflected in the sharpness of your assessment question**. Stay focused, and develop efficient and effective processes to ensure a “lean, mean assessment machine” that can truly meet your needs for program effectiveness – without burying the program in random acts of assessment.