Learning InSights

September 12, 2016
Volume 1 | Issue 9
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The Insight

Course assessment is not about grades, but instead is to determine how effective a course's learning opportunities are in fostering outcomes in order to understand and improve student learning.

Implications

The student learning outcomes of a course should not be a list of objectives, but instead should reflect the purpose of the course and what a student should be able to do by the end of it. In many cases, this might mean that we need to rewrite our course learning outcomes to better reflect the purpose of the course.

"*Put another way, we teach through objectives, we assess for outcomes.*"
– Barkley & Major

Course Assessment: Learning Outcomes vs. Learning Objectives

The terms 'learning outcomes' and 'learning objectives' are often used interchangeably when discussing assessment, but making a distinction between them can be very enlightening, especially when it comes to course level assessment. Consider this: What is the purpose of students taking the course? You should be able to break down the purpose of the course into just a few course goals (possibly even just one general statement). If we identify goal statements as describing in general what we want students to get out of a course, then our next step is to think about what achieving the goals would actually look like. At this point, we are talking about measurable behaviors that we can observe; i.e., what should a student be able to do as a result of successfully completing the course? This is the birth of the student learning outcome (SLO). If we recognize SLOs in this way, then we can identify course objectives as the steps students will need to take to achieve these outcomes.

For example, one appropriate SLO for applied calculus is: *By the end of this course, a successful learner will be able to model and solve optimization problems using calculus.*
In order to successfully achieve this SLO, a student needs to understand functions, limits, derivatives, the first derivative test to find increasing and decreasing intervals and relative extrema, the second derivative test for concavity and points of inflection, and be able to interpret these results and communicate a solution to the problem (and many of these objectives can be broken down even further). My point here is that I do not need to include the full list of everything a student should know after taking the course in the SLO statement, because the SLO statement should represent the product of their learning; in this case, being able to model and solve an actual optimization problem using calculus. Throughout the course, I would teach and test students' abilities on individual objectives as we progress towards the SLOs.

In this way, you can see that the final course grade a student receives is representative of their relative achievement of the objectives of the course, but is not necessarily indicative of their overall achievement of the SLOs. I might then use specific problems on a final exam to assess how many students attained the SLOs of the course and to what level; e.g., maybe some can complete several steps of solving an optimization problem, but cannot interpret and communicate their results correctly. Through this assessment process, I am then able to recognize that I need to re-examine and improve upon the student learning opportunities in the course that relate to this aspect of their learning.

Source: Barkley, E. F., & Major, C. H. (2016). *Learning Assessment Techniques: A Handbook for College Faculty.* San Francisco, CA: Jossey-Bass.