Developing an Effective Program Assessment Plan or "What Do 'They' Want?"

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The Three Basic Steps of Assessment

- *Goals.* What do we want students to be able to do when they complete our program?

- *Information.* How well are students achieving these goals, and what factors influence their learning?

- *Action.* How can we use the information to improve student learning?

(Walvoord, 2010)

Adding Value with Two Additional Steps

- *Goals*. What do we want students to be able to do when they complete our courses of study?

- *Curriculum*. Where do students have the opportunity for learning?

- *Information*. How well are students achieving these goals, and what factors influence their learning?

- *Expectations*. What is the expected level of performance? (now required by HLC)

- *Action*. How can we use the information to improve student learning?

(Maki, 2004; Walvoord, 2010)

Where and When Do Our Students Learn This?

EXCERPT FROM A HYPOTHETICAL BIOLOGY PROGRAM CURRICULUM MATRIX
Key: "I"=Introduced; "R"=reinforced and opportunity to practice; "M"=mastery at the senior or exit level; "A"=assessment evidence collected

Intended Student Learning Outcomes

Courses	Apply the scientific method	Develop laboratory techniques	Diagram and explain major cellular processes	Awareness of careers and job opportunities in biological sciences
BIOL 101	I	I		I
BIOL 202	R	R	I	
BIOL 303	R	M, A	R	
BIOL 404	M, A		M, A	R
Other: Exit interview				A

Retrieved from http://manoa.hawaii.edu/assessment/howto/mapping.htm

The Basic No-Frills Department Assessment System (Walvoord, 2010)

- Learning goals for each degree program, co-curricular program, etc.
- Two measures of how well your students are achieving this goal
  - One direct measure (e.g., student work samples near the time of graduation)
  - One indirect measure (e.g., surveys, interviews, or focus groups that ask students how well they feel they achieved each of the learning goals, what aspects of their program helped them achieve those goals, and what might the department do differently that would help students to learn more effectively)
- One two-hour department meeting per year in which assessment results are discussed, at least one follow-up action to improve student learning is agreed upon, and for which meeting notes are kept

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What do we mean by direct and indirect measures?

Examples of Direct Measures of Student Learning

- Ratings of student skills by their field experience supervisors
- Scores and pass rates on appropriate licensure or certification exams
- Capstone experiences, such as research projects, presentations, theses, dissertations, oral defenses, exhibitions, performances, scored using a rubric
- Other written work, performances, and presentations, scored suing a rubric
- Portfolios of student work

Examples of Direct Measures of Student Learning

- Scores on locally designed multiple-choice or essay tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations

- Score gains (referred to as "value added") between entry and exit on published or local tests or writing samples

- Observations of student behavior (such as presentations and group discussions), undertaken systematically and with notes recorded systematically

- Summaries and assessment of electronic class discussion threads

Examples of Direct Measures of Student Learning

- Think-alouds, which ask students to think aloud as they work on a problem or assignment

- Classroom response systems ("clickers") that allow students in their classroom seats to answer questions posed by the instructor instantly and provide an immediate picture of student understanding

- Feedback from computer-simulated tasks such as information on patterns of action, decisions, and branches

- Student reflections on their values, attitudes, and beliefs, if developing those are intended outcomes of the program

(Suskie, 2009)

Examples of Indirect Measures of Student Learning

- Course grades and grade distributions
- Assignment grades, if not accompanied by a rubric or scoring criteria
- Retention and graduation rates
- Admission rates into graduate programs and graduation rates from those programs
- Scores on tests required for further study (such as the GRE) that evaluate skills learned over a lifetime
- Quality and reputation of graduate programs into which alumni are accepted

Examples of Indirect Measures of Student Learning

- Placement rates of graduates into appropriate career positions and starting salaries

- Alumni perceptions of their career responsibilities and satisfaction

- Student feedback of their knowledge and skills and reflections on what they have learned over the course of their program

- Questions on end-of-course student evaluation forms that ask about the course rather than the instructor

- Student, alumni, and employer satisfaction with learning, collected through surveys, exit interviews, or focus groups

Examples of Indirect Measures of Student Learning

- Student participation rates in faculty research, publications, and conference publications
- Honors, awards, and scholarships earned by students and alumni

(Suskie, 2009)

Using Samples of Student Work for Assessment

- Advantages
  - Information is already available
  - No student motivation problems, since students must complete the work for a grade
  - No direct cost
  - Reflects what faculty actually teach, not what's included on standardized tests, so faculty members are more motivated

Using Samples of Student Work for Assessment

- Disadvantages
  - Evidence not comparable across institutions
  - Everyone evaluates differently, so common standards or rubrics and training are needed
  - Information is in multiple parts and multiple formats, so it needs to be collected in portfolios
  - Quite a bit work, especially at the beginning

(Walvoord, 2010)

Developing a Rubric

- Clearly define the assignment including the topic, the process that students will work through, and the product they are expected to produce.

- Brainstorm a list of what you expect to see in the student work that demonstrates the particular learning outcome(s) you are assessing.

- Keep the list manageable (3-8 items) and focus on the most important abilities, knowledge, or attitudes expected.

- Edit the list so that each component is specific and concrete (for instance, what do you mean by coherence?), use action verbs when possible, and descriptive, meaningful adjectives (e.g., not "adequate" or "appropriate" but "correctly" or "carefully").

Developing a Rubric

- Establish clear and detailed standards for performance for each component. Avoid relying on comparative language when distinguishing among performance levels. For instance, do not define the highest level as "thorough" and the medium level as "less thorough". Find descriptors that are unique to each level.

- Develop a scoring scale.

- Test the rubric with more than one rater by scoring a small sample of student work. Are your expectations too high or too low? Are some items difficult to rate and in need of revision?

University of Virginia Office of Institutional Assessment & Studies. (n.d.)

Using a Rubric

- Evaluators should meet together for a training/norming session.

- A sample of student work should be examined and scored

- More than one faculty member should score the student work. Check to see if raters are applying the standards consistently

- If two faculty members disagree significantly (.e.g. more than 1 point on a 4 point scale) a third person should score the work.

- If frequent disagreements arise about a particular item, the item may need to be refined or removed

University of Virginia Office of Institutional Assessment & Studies. (n.d.)

Available Rubric Libraries

- California State University Fresno
  http://www.csufresno.edu/oie/assessment/rubric.shtm

- University of Delaware
  http://assessment.udel.edu/resources/rubrics.html

- University of Virginia
  http://www.web.virginia.edu/iaas/assess/tools/rubrics.shtm

How Can We Decide What Are Reasonable Expectations?

Benchmarks or Standards for Interpreting Assessment Results

Local Standards	Are students meeting our own standards?
External Standards	Are students meeting standards set by someone else?
Internal Peer Benchmark	How do our students compare to others within Ball State?
External Peer Benchmark	How do our students compare with those of other universities that are similar to Ball State?
Best Practices Benchmark	How do our students compare to the best out their peers?
Value-Added Benchmark	Are our students improving?
Historical Trends Benchmark	Is our program improving?
Strengths and Weaknesses Perspective	What are our students' areas of strengths and weaknesses?
Capability Benchmark	Are our students doing as well as they can?
Productivity Benchmark	Are we getting the most for our investment?

Case Studies of Department Assessment Activities

What Is A Good Assessment Effort? How Will It Help Us and Our Students?

- A good assessment effort:
  - gets faculty members, within and across disciplines, talking about their goals for student learning
  - gets students to see how courses fit together
  - makes our expectations more clear to students
  - provides detailed feedback to students about their learning

(Suskie, 2009; Wolvoord, 2010)

A good assessment effort helps us to:

- Increase our confidence that we are putting our time and resources into activities that we value as an institution

- Increase our confidence that we are allocating resources to areas that are producing the outcomes we value

- Gather and use data that will enable us to make decisions that lead to improved instruction, stronger curricula, and effective and efficient policies

- Strengthen our ability to say that our graduates are well-prepared to succeed in their future endeavors

A good assessment effort helps us to:

- Have ready access to data that will satisfy the requirements of accrediting agencies and funding agencies, and will inform various accountability driven conversations

- Gather and use data that will strengthen arguments for increased funding and/or resource allocations to areas that are producing valued outcomes

- Increase the effectiveness of our communications about the value of a Ball State education.

(University of Delaware, n.d.)

Discussion