

Assessing Student Learning Outcomes

Dr. Susan L. Bosworth , Associate Provost
Institutional Analysis & Effectiveness

College of William & Mary

Prepared for the Southern Association of Colleges and Schools
Commission on Colleges ~ 2009 Summer Institute

What we will do in this breakout group

- Discuss how to structure assessments to monitor curricula and enhance student learning.
- Share strategies for developing a learning-centered curriculum and for connecting curricular experiences to assessment initiatives.
- Look briefly at standardized tools
- Explore in more depth how to integrate coursework into broader assessments of general education and the majors.
- Consider and demonstrate how intentional and transparent assessments of student learning can inform decisions at all levels.

1

Why the focus on student learning

- Student learning is central to institutional mission.
- Student assessment efforts often focus on curricula, faculty productivity, and student "satisfaction" measures.

2

The primary SACS connection

SACS' Principles of Accreditation (2008 Edition):

CS 3.3.1: The institution identifies expected outcomes, assesses the extent to which it achieves these outcomes, and provides evidence of improvement based on analysis of the results in each of the following areas (**Institutional effectiveness**):

3.3.1.1 educational programs, to include student learning outcomes

...

3

Key considerations when assessing student learning outcomes

- Culture of your institution
- Structure of your institution
- Who to involve (the willing and the skeptics)
- Intentional outcomes of assessment for students, faculty, administrators
- External reporting requirements

4

Assessments to monitor a curriculum and enhance student learning

Step 1: Establish a learning-centered curriculum

Step 2: Align curricular experiences with assessment initiatives

5

1: Establish a learning-centered curriculum

- Are curricular goals stated explicitly?
- Do the goals define what the faculty expects students to learn?

Learning expectations for a curriculum should be:

- Mission driven
- Faculty endorsed
- Oriented to actions and/or behaviors
- Measurable

6

Quantitative Reasoning

- The aim of courses in this area is to introduce students to mathematical and quantitative modes of thought. Some courses emphasize theoretical aspects ... Other courses in this area explore the application of quantitative methods...

7

Quantitative Reasoning

- An understanding of mathematical thought and the ability to conceptualize and apply mathematical logic to problem solving; ...

Outcomes

Students will:

- Understand how mathematical and/or statistical models can be used to study real-world situations
- Understand the limitations of and assumptions behind typical mathematical models
- Use mathematical and statistical analysis to interpret such models by testing hypotheses ...

8

Quantitative Reasoning

Goal 2: To acquire & appreciate quantitative skills.

To achieve this goal, students should:

1. Solve mathematical problems of the type necessary for living in today's and tomorrow's world;
2. Make valid inferences from data;
3. Understand that quantitative analysis is important to almost every endeavor of humankind; and
4. Understand the concept and application of quantitative relationships.

9

Examples of defined curricula (see Appendix)

General education

- Harvard University
- Longwood University
- Winthrop University

Degree programs

- Texas A&M – Economics
- Emory University – Middle Eastern & South Asian Studies
- Claflin University – Business Administration / Finance
- UNC - Charlotte – Public Policy Ph.D.

10

Effective strategies for developing a learning-centered curriculum

How does a faculty determine what students should know and be able to do when they graduate?

- Deductive approach
- Inductive approach
- Hybrid approach

How are learning expectations shared with various stakeholders and for what purpose?

11

Identify (co) curricular experiences associated with learning expectations

- Curricular level map:
 - shows how requirements (including electives) articulate learning expectations
- Course level map:
 - shows how course introduces and reinforces learning expectations

12

Curricular map ~ Program level

Level: I=Introduced, R=Reinforced; Emphasis: High, medium, low

Goals → Courses ↓	Think conceptually	Think empirically	Draw inferences
Soc 201	I, Low, assessed	I, Low, assessed	
Criminology	R, Medium, assessed	R, Medium, assessed	
Demography	R, Medium, assessed	R, High, assessed	
Soc. Theory	R, High, assessed		
Honors Thesis	R, High, assessed	R, High, assessed	I, High, assessed

13

2: Align curricular experiences with assessment initiatives

- How do you know the curriculum is working?
- What "evidence" do you need?
- How will assessment results be used to:
 - enhance student learning?
 - inform resource allocation decisions?
 - address accountability requirements?

14

Sources of "Evidence"

Direct measures

- Written exams
- Oral exams
- Performance assessments
- Standardized tests
- Licensure exams
- Oral presentations
- Projects
- Case studies
- Simulations
- Portfolios

Indirect measures

- Questionnaires
 - Web
 - Mailed
 - In-class
- Interviews
- Focus groups
- Employer satisfaction studies
- Advisory board
- Job/grad school placement data

15

Selecting measures

Evidence is "Good" when ...

- it addresses your questions
- it is valid and reliable
- you/others have confidence in it
- you/others understand it
- it is useful
 - Informs decisions
 - Leads to enhanced student learning
 - Provides information for accountability
- it is worth the costs (\$, time, opportunity ...)
- ...

16

Brief look at externally developed standardized tools

Examples: Voluntary System of Accountability

- **Collegiate Assessment of Academic Proficiency (CAAP)** – two modules: critical thinking and writing essay
- **Collegiate Learning Assessment (CLA)** – complete test including performance tasks, analytic writing tasks
- **Measure of Academic Proficiency and Progress (MAPP)** – two sub scores of the test: critical thinking and written communication

17

Pros & cons of different indicators/ measures of student learning

Pros & Cons of different indicators:

- National standardized tests
- National licensure exams
- Locally developed standardized tests
- Capstone projects/papers
- Course specific assignments/tests
- Self-report survey instruments
- ...

18

Coursework as a source of “evidence”

- Curricular mapping: program level
 - Shows how requirements (including electives) intentionally articulate learning expectations
- Curricular mapping: course level
 - Shows how courses intentionally address learning expectations
- Curricular mapping: assessment initiatives
 - Shows how learning experiences intentionally inform curricular assessments

19

Curricular map ~ Course level

Input: WHAT Learning Expectations/ Requirements	Output: HOW Learning Experiences: Curriculum/Course				Assessment (for course)
	Lecture	Case competition	Oral discussion	Exam (...)	
Problem Solving	X	X	X		Case compet.
Innovation and Creativity	X	X			Case compet. Paper
Managerial Perspective	X			X	Exam
Ethics (...)			X		

20

Curricular map ~ Course level: Math 108

(Instructor guide): x=addressed, √=assessed

↓ Experience Learning Goal→	GER: Math & quantitative reasoning			Major	
	Goal #1	Goal #2	Goal #3	Goal #1	Goal #3
Lecture	X	X	X	X	X
Readings	X		X	X	X
Ref. paper				X	
Grp project	√	√	√		
Midterm	√				
Final	√	√	√		√
Assessed:	3	2	2	0	1

21

Curricular map ~ Course level: SOWK3233:

An Intentionally Designed Course

SOWK 3233 (List course experiences)	The Social Work faculty expects graduates to be able to:		
	Apply critical thinking skills	Engage in ethical decision-making	Analyze, formulate, & influence social policies
	Map the different experiences in which expectation is addressed.		
Lecture	X	X	X
Group project		X	
Reading (...)		X	X
Evidence that can be used in program assessment of learning expectations			
	Field log, Final	Term project	Term project

22

Integrating coursework into broader assessments of student learning

- Course embedded approach
 - Faculty members include common assignments/tests

- Course portfolio approach
 - Faculty members collect assignments/tests for broader assessment

23

Course portfolios: Example of process used to evaluate general education

- Academic year: Instructors construct portfolios
- May Seminar: Working group of faculty rate portfolios using a common scoring guide
 - Working group appointed by Dean
 - Scoring guide based on learning goals/expectations articulated in the curriculum
 - Scores aggregated in tables and graphs
 - Working group responds to set of questions about the portfolios, the curriculum, and the assessment process
- Report distributed to chairs, deans, committees

24

Structure of a course portfolio

- Narrative describing how course experiences align with learning expectations
- Course syllabus, course material
- Examples of student work (full range)
 - ✓ Excellent
 - ✓ Marginal
- Survey Responses

25

Use of assessment results

How can assessment results inform decision-making at all levels and enhance student learning?

- Course level
- Program level
- School level
- University level

26

**Questions?
Comments?**

Thank you!
