

ASSESSMENT OF PROGRAMS: Master's Institutions

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Two Components of Evaluation

- Program Review
 - The purpose of program review is the improvement of graduate programs
- Assessment
 - The purpose of assessment is to improve student learning

Program Review and Assessment go Hand-in-Hand

Both can be linked to improve program quality

Purpose of Program Reviews

- Formative
- Continuous improvement
- Data driven and outcome based
- Evaluative
- Accountability
 - Disciplinary accrediting bodies
 - Regional accrediting bodies

Types of Program Reviews

- Periodic
 - External Reviews
 - Internal Review
 - Annual Program Profiles
- Snapshot
 - Comprehensive
 - Ohio State
 - University of North Carolina, Greensboro

Assessment & Review of Graduate

Programs: Quotes from new CGS Monograph

- It is recommended that every graduate program be reviewed every five to ten years.
- Graduate program review is an independent process, distinct from any other review.
- Integrating outcomes assessment with formal review process maximizes the value of both and reflects best practice.
- Most important, program review results in action.
 - This plan is linked to the institution's budget and planning process in order to ensure that recommended changes are actually made.
- One year after the action plan or memorandum of understanding is signed, or at some other agreed-upon date, the parties responsible for each action item should be asked to report on what has been accomplished.

Data Points

- Typically Required
 - Fit with Mission and Strategic Goals of University
 - Purpose of Program
 - Students within Program
 - Demand for graduates
 - Application rates
 - Selectivity rates
 - Yield rates
 - Applicant admission scores
 - Grade Credentials of Applying, Admitted, and Enrolled Students
 - Attrition rates
 - Completion rates
 - Time-to-Degree
 - Prerequisite physical space and facilities
 - Curriculum structure

Data Points

- Typically Required
 - Teaching course loads
 - Certificate productivity
 - Master's degree productivity
 - Doctoral degree productivity
 - Class Size
 - Funded activities and sponsored research
 - Publishing recognition activities
 - Success of graduates
 - Instruction productivity
 - Equipment and Needs
 - Library
 - External Success Measures
 - Excellence Awards
 - Number of Assistantships
 - Percentage of full time students with Assistantships
 - **Student Learning - Assessment**

Embedding Assessment into Academic Program Reviews

- Purpose of reviews is to determine if program achieves its objectives
- Assessment examines success of students in achieving learning objectives
- The pairing of the two is a good strategy

Assessment

The Political Climate of Accountability

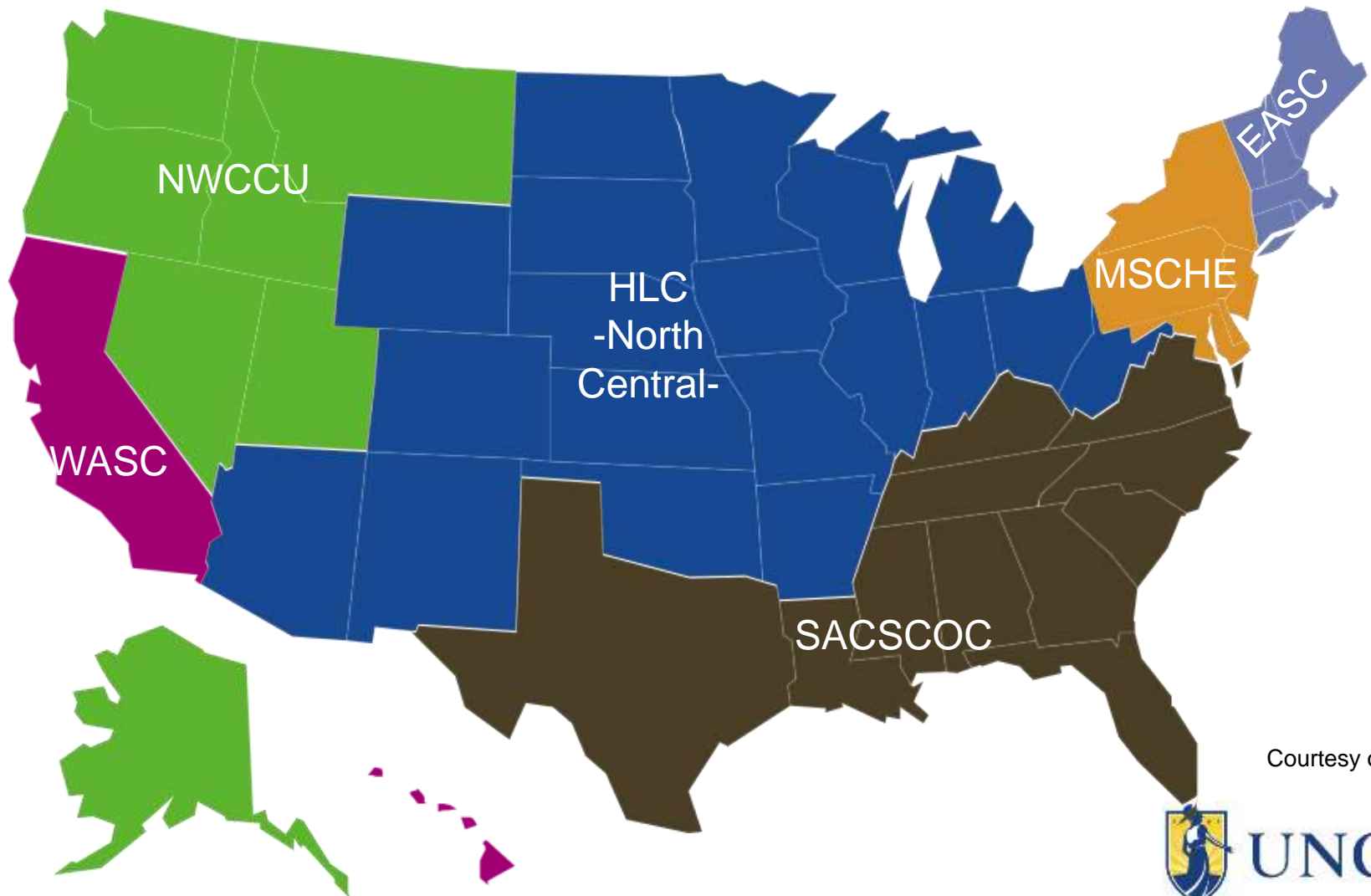
- Disciplinary Accrediting Bodies
- Regional Accrediting Bodies
- The U.S. News and World Report Rankings
- The National Research Council
- Reauthorized Higher Education Act

Disciplinary Accrediting Bodies

- Association to Advance Collegiate Schools of Business
- Accrediting Council on Education in Journalism and Mass Communication,
- Commission on Dental Accreditation of the American Dental Association
- Accreditation Board for Engineering and Technology
- American Bar Association and Association of American Law Schools
- Commission on Collegiate Nursing Education
- National Council for Accreditation of Teacher Instruction
- American Psychological Association
- American Speech-Language-Hearing Association
- National Accrediting Agency for Clinical Laboratory Sciences
- Accreditation Review Commission on Education for the Physician Assistant
- American Physical Therapy Association
- American Society of Exercise Physiology
- National Athletic Training Association Board of Credentialing



Regional Accrediting Agencies



Courtesy of HLC



Assessment Concepts

- **Definition:** the systematic collection review and use of information about student learning in order to inform decisions about how to improve learning
 - (Palomba and Banta, 1999; Walvoord, 2004)
- It is a type of “**action research**” used to inform local action.
- It does not necessarily require standardized tests or “objective measures.” One can assess critical thinking, scientific reasoning, or other qualities by making informed professional judgments

History of Assessment

- Universities have always engaged in informal assessment
- 1990 in *Scholarship Reconsidered*, encouraged quality teaching
- In 1992 the federal government required accrediting agencies to include student learning outcomes as part of accreditation
- In 2001 the Council for Higher Education, in *Accreditation and Student Learning Outcomes: A Point of Departure* argued for use of SLOs
- In 2003 the Council for Higher Education Accreditation in its *Statement of Mutual Responsibilities for Student Learning Outcomes* urged use of SLOs
- In 2005 in the publication of *The Responsive Ph.D.* emphasized as one of its four principles, conducting assessment with reasonable consequences
- Each of the six regional accrediting bodies have standards calling for use of SLOs

Levels of Undergraduate Assessment

- Four levels of student learning outcomes are typically required at UG level:
 - Course Outcomes
 - Program/Departmental Outcomes
 - Skills or abilities specific to the major of study
 - General Education Course Outcomes
 - Writing, communication, mathematics, critical thinking, foreign language, etc.
 - Broad exposure to such areas as fine arts, humanities, cultures and civilizations, social and behavior sciences, natural sciences, and health and well being
 - Institutional Outcomes

Levels of Graduate Assessment

- Course Outcomes
- Departmental Outcomes
- Foundational Outcomes (commonalities)
- Institutional Outcomes

Departmental Assessment

0=No Coverage; 1=Slight Coverage; 2=Moderate Coverage; 3=Major Coverage

	Objective 1 Theoretical Knowledge	Objective 2 Counseling Skills	Objective 3 Cultural Competency	Objective 4 Legal/Ethical Regulatory	Objective 5 Research	Objective 6 Assessment & Diagnosis
CECP 601 Intro to Counseling	3	0	2	3	1	1
CECP 602 Theories of Counseling	3	3	1	0	0	3
CECP 603 Professional Issues	1	0	3	3	0	2
CECP 620 Group Dynamics	2	3	1	1	0	3
CECP 640 Appraisal Procedures	1	1	1	1	2	3
CECP 645 Research	0	0	0	1	3	1
CECP 650 Practicum	0	3	2	2	1	3
CECP 660 Multicultural	1	2	3	2	0	1

Six Basic Steps in Assessment

Step One

- **Document departmental goals for student learning**

Step One Examples

- Acquire advanced knowledge and a deeper understanding of the skills and knowledge in the discipline
- Develop a sense of responsibility towards, as well as an understanding of the ethical dimensions of the discipline
- Develop the competence, knowledge, and independence for the realization of leadership potential
- Other goals specific to the discipline

Step Two

- Document departmental goals for student learning
- **Articulate the student learning outcome statements (what the student will be able to do upon completion)**

Step Two

- The goals must be operationalized into learning outcome statements within the context of the discipline
- The statements should describe the attitudes, behaviors, skills, and ways of thinking

Step Two Examples

- **At the completion of the degree in communication, the graduate will be able to:**
 - 1. Communicate effectively in both oral and written format during capstone experience.
 - 2. Articulate the historical, theoretical and methodological foundations of the discipline of communication.
 - 3. Apply research-based, theory-informed knowledge of the field to solve real-life problems in a variety of work or community settings.
 - 4. Apply ethical decision making skills in a variety of communication situations.
 - 5. Integrate knowledge from theory, methods, and ethics from the discipline of communication to a particular specialization
 - 6. Design and execute an original thesis research project.

Step Three

- Document departmental goals for student learning
- Articulate the student learning outcome statements (what the student will be able to do upon completion)
- **Gather evidence on performance**
 - **Direct measures**
 - **Proxy measures**

Step Three: Gather Evidence

Direct Evidence

- Evaluation of papers, projects, original work in courses but not course overall grade
- Comprehensive examinations
- Certification examinations
- Licensure examinations
- Locally developed pretest and/or posttest
- Portfolios with evidence of learning
- Audio or videotaping
- Thesis/dissertations
- Peer-reviewed publications
- Disciplinary presentations
- Funded grants and fellowships

Proxy Evidence

- Benchmarking with peer institutions
- Career Placements
- Employer Surveys
- Advisory groups on curriculum development
- Student Graduation/retention rates
- Exit interviews
- Student satisfaction surveys
- Focus Groups
- Alumni surveys
- Alumni honors
- Analysis of grade distributions
- Peer review of courses and programs

Step Four

- Document departmental goals for student learning
- Articulate the student learning outcome statements (what the student will be able to do upon completion)
- Gather evidence on performance
 - Direct measures
 - Proxy measures
- **Use a rubric to evaluate how well goals are being met**

Step Four: Use a Rubric

- Provides in writing various clear and explicit criteria for evaluation of student work
- Changes professional judgment into numerical ratings on a scale
- Allows comparison among various faculty across courses

Example: Communication Rubric

	1	2	3	4	Total
Organization	Audience cannot understand presentation because there is no sequence of information.	Audience has difficulty following presentation because student jumps around.	Student presents information in logical sequence which audience can follow.	Student presents information in logical, interesting sequence which audience can follow.	
Subject Knowledge	Student does not have grasp of information; student cannot answer questions about subject.	Student is uncomfortable with information and is able to answer only rudimentary questions.	Student is at ease with expected answers to all questions but fails to elaborate.	Student demonstrates full knowledge (more than required) by answering all class questions with explanations and elaborations.	
Graphics	Student uses superfluous graphics or no graphics	Student occasionally uses graphics that rarely support text and presentation.	Student's graphics relate to text and presentation.	Student's graphics explain and reinforce screen text and presentation.	
Mechanics	Student's presentation has four or more spelling errors and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has no misspellings or grammatical errors.	
Eye Contact	Student reads all of the report with no eye contact.	Student occasionally uses eye contact, but still reads most of report.	Student maintains eye contact most of the time but frequently returns to notes.	Student maintains eye contact with audience, seldom returning to notes.	
Elocution	Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in back of the class to hear.	Student's voice is low. Student incorrectly pronounces terms. Audience members	Student's voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.	Student uses a clear voice and correct, precise pronunciation of terms audience members can hear presentation.	

GSLO and Criteria	Does Not meet Expectation (Unacceptable) 1	Meets Expectation (Acceptable) 2	Exceeds Expectation (Outstanding) 3
1. Knowledge and Scholarship <i>A. Literature review:</i>		Demonstrates comprehensive knowledge of current research in the field of study	
<i>B. Hypothesis/Objectives:</i>		Generates viable question and hypothesis related to the question	
<i>C. Research methods:</i>		Applies appropriate research methods to address hypothesis	
2. Effective communication:		Discusses effectively and documents the contribution of research/scholarship	
<i>A. Content</i>			
<i>B. Delivery</i>			
<i>C. Format</i>			
3. Critical Thinking		Demonstrates sufficient knowledge of appropriate concepts, theories, and emerging methodologies	
<i>A. Data analyses:</i>		Performs analyses of data and presents the results in a clear manner	
<i>B. Interpretation</i>			
<i>C. Appropriate conclusions</i>			
4. Ethical and responsible research		Cites references appropriately. Honest and accurate interpretation of data. References listed correctly.	

Doctoral Example

Purdue University Dissertation Rubric Form

Holistic Summative Assessment: The holistic summative assessment rates the overall performance based on the evidence provided in 1 – 4 items in the formative assessment.

CRITERIA	PERFORMANCE RATINGS		
	DOES NOT PASS	PASSES DEFENSE	
OVERALL PERFORMANCE	1. Does not meet expectation	2. Meets expectation	3. Exceeds expectation
NOTE: Each committee member can turn in his/her evaluation			

Step Five

- Document departmental goals for student learning
- Articulate the student learning outcome statements (what the student will be able to do upon completion)
- Gather evidence on performance
 - Direct measures
 - Proxy measures
- Use a rubric to evaluate how well goals are being met
- **Use the information for improvement of learning**

Program: Biological Sciences

Degree: Ph.D.

Program Learning Outcomes	Performance Indicators	Measures	Use of the Information
1. Demonstrate an in depth mastery of advanced concepts in biological sciences	<p>1A. Display proficiency in course learning objectives in designated core and specialty area courses</p> <p>1B. Communicate, articulate and explain advanced biological concepts developed from core courses, courses in specialty area and research in both (a) oral and (b) written formats</p> <p>1C. Critique advanced biological concepts with reference to current research reports and alternative theories.</p>	<p>1A. Grades in designated projects in core courses (BIOL 211, 212, 213, and 214) and specialty area courses. Rubrics/performance criteria are related to course objectives.</p> <p>1B. (a) Evaluation of departmental seminar presented by student every year . after the first year.</p> <p>1C. Evaluation of (i) proposal format written exam in which the student designs a logical series of experiments to address an open ended question</p>	Information from 1A, Grades; 1B (a) (ii), the Annual Report and (b) Results of the Qualifying Exam, and 1C to be collected, compiled and reviewed by Departmental Graduate Affairs Committee. .
2. Demonstrate independent scientific thinking	2. Identify a meaningful research problem, describe underlying previous research and theory relevant to the identified research problem, develop a hypothesis regarding the research problem and suggest a logical progression of experiments to test the hypothesis	2. Evaluation of (i) proposal format written Qualifying Exam in which the student designs a logical series of experiments to address an open ended question, (ii) dissertation research plan, and (iii) completed dissertation at final defense, by 5 faculty member graduate advisory committee.	Information to be collected compiled and reviewed by Departmental Graduate Affairs Committee. (see above)
3. Design and execute an original research project.	3. Develop a hypothesis regarding an identified research problem, design and carry out experiments to test that hypothesis, and evaluate experimental results in regard to proposed hypothesis.	3. Evaluation of (i) dissertation research plan, and (ii) completed dissertation at final defense, by 5 faculty member graduate advisory committee.	Information to be collected compiled and reviewed by Departmental Graduate Affairs Committee. (see above)

Example:

Outcomes, Indicators, Measures

Usage:
(Third Column)



Example of Usage at Marquette

- Finding: Students lack quantitative skills in understanding graphs, charts, and numerical concepts
 - Solution: Embedding Math Across the Curriculum

Step Six

- Document departmental goals for student learning
- Articulate the student learning outcome statements (what the student will be able to do upon completion)
- Gather evidence on performance
 - Direct measures
 - Indirect measures
- Use a rubric to evaluate how well goals are being met
- Use the information for improvement of learning
- **Evaluate the assessment process itself for improvement**

Improvement of Assessment

1=Beginning	2=Developing	3=Good	4=Exemplary
No mention of how this iteration of assessment is improving from past administration	Some critical evaluation of past and current assessment, including acknowledgement of flaws, <u>but not evidence of improving</u> upon past assessment or making plans to improve assessment in future iterations	Critical evaluation of past and current assessment, including acknowledgement of flaws; Plus <u>evidence of some moderate revision, or general plans</u> for improvement of assessment process.	Critical evaluation of past and current assessment, including acknowledgement of flaws; <u>both present improvements and intended improvements are provided</u> ; for both, specific details are given. Either present improvements or intended improvements must encompass a major revision.

Procedural Items to be Addressed

- Who will be responsible for administration of the assessment plan
- What are the resources and structures for assessment
- Who are the targeted students (population vs. sample)
- When will the student assessments be conducted and repeated
- How is assessment data to be used for improvement of learning
- What are the recommended changes to improve the assessment mechanism

Graduate Core Competencies

- Each graduate program should have its discipline specific GSLOs
- But graduate education doesn't have general education courses or a core curriculum
 - Therefore is it possible to have GRADUATE CORE LEARNING OUTCOMES?
 - Are there outcomes that are common across all graduate programs at a university?

Possible Graduate CORE Learning Outcomes

- Communicate the history of the discipline
- Demonstrate a mastery of the theory that underlies the foundation of the discipline
- Demonstrate a mastery of the methodology and techniques specific to the discipline
- Demonstrate proficiency in oral and written communication within the field of study
- Demonstrate a mastery of research, scholarship, and critical evaluation within the field of study
- Demonstrate creative or innovative activity within the field of study
- Function as a professional and a steward of the discipline
- Demonstrate a mastery of professional ethics and/or research ethics

The Controversy

- Assessment seen as a bureaucratic imposition vs. a method to improve learning and pedagogy
 - September 7th 2010 Chronicle Article entitled *Assessment Projects from Hell* by David Glenn
 - 45 irate comments
 - November 12th 2010 Chronicle article entitled *It's Not How Much Student Data You Have, but How You Use It* by Sara Lipka
 - “Ready, shoot, aim”

What Lies Ahead?

- Assessment required by accreditation
- Make assessment pay off
- Need for benchmarks
- Developing SLOs across universities to allow comparisons
- Determination if standardized tests are needed
- Preparing future faculty for assessment
 - CGS Teagle Foundation Project
- CGS Publications

Questions and Answers

