



Assessment 101 for IR Professionals October 26, 2011

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Powerpoint presentation is online at _____

Learning outcomes for today's session

Participants will

1. Apply assessment terminology and concepts.
2. Consider how assessment informs student learning.
3. Describe aspects of a complete cycle of assessment.
4. Gain insights regarding best practices in assessing student learning outcomes.
5. Develop strategies for supporting assessment efforts.
6. Consider how assessment relates to accreditation.

Definitions

"A rich conversation about student learning informed by data."
Ted Marchese, American Association for Higher Education.

"A process that asks important questions about student learning, gathers some meaningful information on these questions, and uses the information for academic improvement."

Palomba, C. & Banta, T. (1999). *Assessment Essentials: Planning, Implementing, and Improving*. San Francisco: Jossey-Bass.

"Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development."

Palomba, C. & Banta, T. (1999). *Assessment Essentials: Planning, Implementing, and Improving*. San Francisco: Jossey-Bass.

“When the cook tastes the soup, that’s formative;
When the guests taste the soup, that’s summative.”

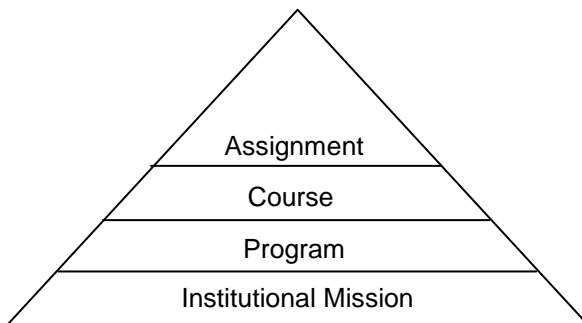
Source: Bob Stake, referenced at
<http://www.nsf.gov/pubs/2002/nsf02057/nsf02057.pdf>



Note: Assessment ≠ Faculty Evaluation: The focus of assessment is on students and/or programs.

Levels of assessment: assignment, course, program, and institution

Alignment among these outcomes is ideal.



Assessment answers important questions about student learning

1. To what extent does participation in research contribute to students’ knowledge and skill development?
2. Which laboratory experiences are most effective in enabling students to learn to solve problems by applying scientific and engineering principles?
3. Which pedagogies are most likely to enable students to develop written communication skills?
4. Should this pilot program (study abroad, laboratory course, on-campus residence requirement, mentoring program for graduate students, etc.) be implemented institution-wide?
5. How well does our curricula meet the needs of employers?
6. How do new technologies contribute to improved student learning? Should we invest limited resources in computer technologies, laboratory equipment, distance learning, etc?
7. What are the educational and social impacts of students who live on campus vs. those who live off campus?
8. What are the questions/issues that faculty care about? (At Mines, one of the issues we are considering is the extent to which the core curriculum meets the needs of students once they are enrolled in courses that are required for their major.)

“If we care -- truly care -- about our students, then we likely care about students learning what we would like them to learn. And one way we can show that we care about their learning is assessment.”

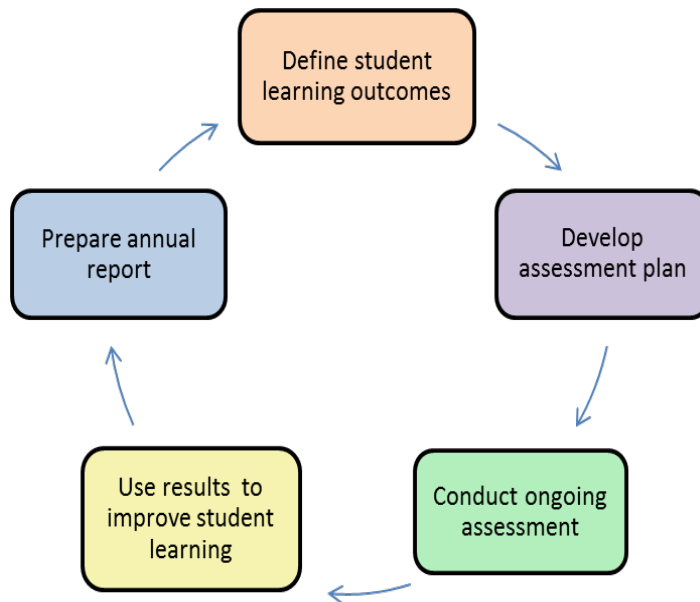
Melanie Booth, Dean for Learning & Assessment at Marylhurst University

Source: http://www.insidehighered.com/blogs/university_of_venus/assessment_as_an_act_of_care

Developing a complete cycle of assessment



Disclaimer: there is not only one “right way” to conduct assessment, but there are some best practices and recommended approaches that apply to most institutions. Below is the five-step process that we use at the Colorado School of Mines.



Establish program objectives and student outcomes

- Establish SMART outcomes:
 - S Specific
 - M Measurable
 - A Achievable
 - R Realistic
 - T Timebound
- Focus on what the student accomplishes, not what the faculty provide (i.e. “Students will synthesize information from relevant sources in order to support their hypothesis.” vs. “Graduate students will be encouraged to publish their findings in appropriate peer-reviewed journals.”)
- Use action verbs to describe expectations (Bloom’s Taxonomy is a guide for categorizing learning domains. http://www.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm) A useful list of verbs is online at http://www.educationoasis.com/curriculum/LP/LP_PDF%20Word/blooms_tax_verbs.pdf

Develop assessment plan

- Direct methods require students to complete an assignment so that faculty can determine how well students meet outcomes.
 - Institutionally developed exam
 - Nationally normed exam
 - Oral performance
 - Portfolio
 - Research paper
 - Music performance, bridge that students built, artwork, etc.
 - Case study
 - Dissertation
- Indirect methods provide opportunities for students to reflect on their learning experiences and share their perceptions of these experiences.
 - Surveys
 - Focus groups
 - Interviews
 - Description of advantages and disadvantages is online at http://www.aacu.org/meetings/institute_gened/documents/BW_indirect_methods.pdf

- Qualitative and quantitative approaches are valid.
- Each outcome should have at least one method of measurement. Ideally, some assessment methods will assess multiple outcomes.

	Direct Assessment Methods				Indirect Assessment Methods	
	Standardized Exam	Case Study	Oral Report	Lab Assignment	Senior Survey	Focus Group
Outcome 1	X					X
Outcome 2	X		X		X	X
Outcome 3			X		X	
Outcome 4		X				
Outcome 5		X		X	X	

- Align courses with outcomes: curriculum mapping helps to identify which outcomes are addressed by which courses.

	Bio 101	Bio 105	Bio 201	Bio 203	Bio 301	Bio 304	Bio 305	Bio 400	Bio 401	Bio 456	Bio 490
Outcome 1	X										
Outcome 2	X				X			X	X		
Outcome 3			X						X		
Outcome 4		X	X							X	
Outcome 5						X	X				X

- Sampling is highly recommended, when applicable.
- Develop a timeline; not all assessment methods need to be implemented each year for each program/course.
- Develop performance criteria (i.e. “90% of students will pass the licensure exam on their first attempt” or “80% of students will analyze the use of melody, harmony, rhythm, structure and style in the music of the past and present.”)
- Consider developing a rubric to assess results. A rubric is a mechanism for applying quantitative ratings to qualitative descriptions of specific performance criteria. Samples are online at <http://inside.mines.edu/assessment/Sample-Rubrics> and on page 8 of this handout.

Conduct ongoing assessment

The purpose of assessment is continuous, not episodic, improvement. You can assess each outcome each semester, for example, or assess each outcome every three years. Alternatively, you can implement each assessment method each semester or develop a timeline for implementing each assessment method on a period basis.

	Assessment Method (or Learning Outcome)				
	1	2	3	4	5
Semester 1	X				
Semester 2		X			
Semester 3			X	X	
Semester 4		X		X	
Semester 5	X				X
Semester 6		X	X		

Use results to improve student learning

“An effective assessment program should spend more time and money on using data than on gathering it...providing support for making changes in response to the evidence.”
 Banta T., Blaich, C. (2011, January/February).
 Closing the assessment loop. *Change: The Magazine of Higher Learning* , 22-27.

It is useful to share examples of improvements with faculty, students, the public, Board of Trustees, and accreditors. (I created an “Assessment and You” student newsletter and an “FYI newsletter” for faculty and staff to share assessment results.) Examples of how results can be used to improve student learning include:

- Add or remove courses from curriculum
- Restructure course pre-requisites
- Purchase a specific type of laboratory equipment
- Require a semester of study in a non-English language
- Assign first-year advisor to all students in a common first-year course

Hire a faculty member with expertise in a particular topic
Integrate cultural diversity training into required first-year course
Require students to complete an internship
Introduce service learning concepts during new student orientation
Require students to study off campus
Restructure new student orientation

Prepare annual report

Develop a template/process for faculty to respond to the following questions:

1. What are the learning objectives and outcomes?
2. What is your plan for assessing these outcomes?
3. Which aspects of plan were implemented this past year?
4. How did faculty use information to improve learning?

Suggestions for encouraging faculty to participate in the reporting process:

- If possible, the report should address the interests of multiple audiences, including accrediting agencies. Try not to ask faculty to submit separate reports to meet the needs of various constituencies.
- When reporting results, adhere to principles related to confidentiality of student information. Only summary results should be shared. However, the approach I prefer is that results be maintained by the department, program or faculty member who is coordinating the assessment and that results be shared on an “as needed basis.” That strategy emphasizes the use of the results to improve student learning outcomes rather than the results themselves. (However, if you are trying to engage faculty in a campus-wide discussion of a particular learning outcome, then sharing results is entirely appropriate and necessary.)
- Assure faculty that results are not intended to be used in a punitive manner. Rather, identification of outcomes that are not being achieved can provide the rationale for additional resources.
- Provide feedback based on a rubric (this models a best practice in assessment.) See page 8 for an example of a rubric we use to assess the annual reports. On 10/13/11, Dr. Donna Vinton posted a comprehensive list of rubrics to the ASSESS-Assessment in Higher Education list. The title of the post is “Resources for Faculty Evaluation of Assessment Reports.” View the archive at <http://lsv.uky.edu/scripts/wa.exe?A0=ASSESS>.
- Highlight best practices and consider rewarding faculty/programs that conduct successful assessment.
- Provide opportunities to faculty to share best practices with each other.

Insert Assessment Comm Rubric

Characteristics of a strong assessment process/best practices

- Implementation is ongoing (to facilitate continuous quality improvement.)
- The plan is reasonable, manageable and sustainable.(Do not try to do everything at once; assessment can be phased in over a period of time.)
- Faculty take ownership of the process, discuss results, use results for decision making, and take actions that improve student learning. View “Why Faculty Should Take Ownership of Assessment: Ten Concrete Examples from Other Major Research Universities” by Dr. Richard Light, the Walter H. Gale Professor of Education at Harvard University at <http://cast.nacs.uci.edu/tltc/Production/DUE/ARS/RichardLight.html>
- The plan is based upon assignments, projects, field experiences, etc. which are embedded in the curriculum.
- The plan includes a variety of direct and indirect measures.
- The plan includes both quantitative and qualitative measures.
- Each assessment method ideally measures more than one outcome.
- Courses are mapped to outcomes, to facilitate discussion of courses that are not addressing critical outcomes and to identify how extensively the outcomes are being addressed in the curriculum.
- The performance expectations are defined as either norm referenced (comparisons of students to other students; this could include comparisons of your institutions’ students to students at peer institutions) or criterion referenced (comparisons to a set standard, such as licensure pass rates).
- Students understand their role in assessment--inform students how assessment will be used and how it can benefit them. Ideally, students take ownership and interest in their own learning.
- The process is cost effective and financially feasible.

How can institutional research support assessment?

“Like most aspects of higher education, there is great diversity in how colleges and universities approach the assessment of student learning. But central to all credible assessment efforts is the use of data – both quantitative and qualitative – to document the degree of learning achieved by students.”

Randy Swing
Executive Director, Association for Institutional
Research [http://www.learningoutcomes
assessment.org/occasionalpapereleven.htm](http://www.learningoutcomesassessment.org/occasionalpapereleven.htm)

- Provide statistical expertise and assist with analysis results.
- Provide guidance regarding sampling and other best practices in conducting research
- Contribute information related to:
 - Students' incoming qualifications (ACT, SAT, HS rank, etc.)
 - Course completion patterns
 - Persistence information and graduation rates (i.e. students who study abroad, attend FYE, participate in supplemental instruction, etc. vs. those who do not)
 - Comparisons with peer/aspirant institutions
- Encourage faculty to make better use of existing information rather than collecting more information.
 - Offer to analyze existing data.
 - Offer suggestions for data analysis if faculty are not comfortable sharing their data.
 - Provide examples of how others (including other institutions) have used similar information to inform student learning.
- Help develop a culture of information-based decision making.
 - Model appropriate use of information.
 - Model appropriate display and dissemination of information.
 - When issues are being discussed, ask about the information that supports the claims being made. Offer to provide information that would be relevant to the issue, but is not currently part of the deliberations. However, do not "take sides" during debates; your role is to be objective.
 - Share information widely so that IR/assessment personnel are perceived as the "go to" experts. Faculty may be unaware of how IR can contribute useful information related to student learning outcomes.
 - When people are drawing conclusions based on anecdotal evidence rather than on evidence that has been gathered more systematically, offer to assist in implementing new processes for obtaining the needed information.
 - Share examples of one department/program's successes with other departments/programs.
- Facilitate information/process sharing among faculty.
- Share expertise regarding reporting (including visual display) and communicating information.
- Encourage best practice in research methods (IRB compliance, fair testing practices, etc.).
- Develop and administer surveys and analyze survey results.

Additional examples from participants:

Strategies for success

1. Focus on students, not the “A” word.
2. Don’t wait for people to come to you, publicize/promote how you can be a resource.
3. Meet faculty where they are at in terms of expertise.
4. Help faculty recognize their current assessment efforts: using students’ feedback (such as blank stares from students, which could indicate a lack of understanding about a concept) to change how a concept is explained, giving feedback to students so they can improve their performance, etc. Most faculty engage in classroom assessment, but many do not document their efforts/document the improvements that they make.
5. Model assessment principles (i.e. committee use of a rubric to provide feedback to departments).
6. Recognize that a one-size-fits-all approach is unlikely to be ideal.
7. Partner with faculty as often as possible.
8. Partner with staff/administrators in Student Affairs.
9. Have faculty share successes/efforts that were less successful with each other.
10. Recognize faculty efforts—celebrate!
11. Evaluate the assessment plan (ask faculty for feedback.)
12. Recognize that a one-size-fits-all approach is unlikely to be ideal.

Additional examples from participants:

- 1. The assessment of student learning begins with educational values.**
Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only *what* we choose to assess but also *how* we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.
- 2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.**
Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.
- 3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.**
Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations -- those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.
- 4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.**
Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way -- about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.
- 5. Assessment works best when it is ongoing not episodic.**
Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none, improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

6. Assessment fosters wider improvement when representatives from across the educational community are involved.

Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully addressed without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood, assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.

Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return "results"; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement.

8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.

Assessment alone changes little. Its greatest contribution comes on campuses where the quality of teaching and learning is visibly valued and worked at. On such campuses, the push to improve educational performance is a visible and primary goal of leadership; improving the quality of undergraduate education is central to the institution's planning, budgeting, and personnel decisions. On such campuses, information about learning outcomes is seen as an integral part of decision making, and avidly sought.

9. Through assessment, educators meet responsibilities to students and to the public.

There is a compelling public stake in education. As educators, we have a responsibility to the publics that support or depend on us to provide information about the ways in which our students meet goals and expectations. But that responsibility goes beyond the reporting of such information; our deeper obligation -- to ourselves, our students, and society -- is to improve. Those to whom educators are accountable have a corresponding obligation to support such attempts at improvement.

Authors: Alexander W. Astin; Trudy W. Banta; K. Patricia Cross; Elaine El-Khawas; Peter T. Ewell; Pat Hutchings; Theodore J. Marchese; Kay M. McClenney; Marcia Mentkowski; Margaret A. Miller; E. Thomas Moran; Barbara D. Wright.

Assessment and institutional research support accreditation efforts

Accreditation: Voluntary, non-governmental, peer-review process that is intended to assure, and then certify, the quality of the education that students receive.

The most influential factors related to assessment:

1. The expectations of regional accreditors.
2. The expectations of specialized accreditors.
3. The institution's commitment to improvement.

Source: 2009 NILOA study of provosts/chief academic officers
<http://www.learningoutcomeassessment.org>

The regional and programmatic/specialized accrediting agencies require that institutions engage in efforts to assess student learning outcomes. While institutions should engage in continuous improvement efforts to ensure their long-term effectiveness, the reality is that accreditation dictates (to a varying extent) how and why institutions implement assessment activities.



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HLC Criterion Four: Effective Teaching and Learning

"The institution provides evidence of student learning and teaching effectiveness that demonstrates it is fulfilling its educational mission."

Source: <http://ncahlc.org/information-for-institutions/proposed-revisions-to-the-criteria-for-accreditation.html>

Fundamental questions for conversations on student learning:

1. How are your stated student learning outcomes appropriate to your mission, programs, and degrees?
2. What evidence do you have that students achieve your stated learning outcomes?
3. In what ways do you analyze and use evidence of student learning?
4. How do you ensure shared responsibility of assessment of student learning?
5. How do you evaluate and improve the effectiveness of your assessment of student learning efforts?



NWCCU Standard Four: Effectiveness and Improvement

“The institution regularly and systematically collects data related to clearly defined indicators of achievement, analyzes those data, and formulates evidence-based evaluations of the achievement of core theme objectives... The institution disseminates assessment results to its constituencies and uses those results to effect improvement.”

Source: [http://www.nwccu.org/Pubs%20Forms%20and%20Updates/ Publications/ Standards%20for%20Accreditation.pdf](http://www.nwccu.org/Pubs%20Forms%20and%20Updates/Publications/Standards%20for%20Accreditation.pdf)

IR staff can support accreditation efforts in the following ways:

- Provide information: IPEDS, CDS, fact books, etc.
- Provide information related to student learning outcomes.
- Serve as central information source; verify all data included in the report.
- Develop resource room/website.
- Proofread/edit self study report.
- Serve as a resource during the visit.
- Submit annual reports (AIDU).

Additional examples from participants:

Glossary

Criterion-referenced assessment: compares students’ performances or scores against an established standard. Criterion-referenced tests determine what test-takers can do and what they know, not how they compare to others.

Curriculum map: a tool used to analyze and display the relationship between learning outcomes and courses, programs, or assessment methods.

Direct assessment: occurs when measures of learning are based on students’ performance or demonstrations of their learning. Direct measures require students to demonstrate their knowledge, skills, and attitudes for measurement. Examples include objective tests, essays, presentations, portfolios, and classroom assignments.

Embedded assessment: a method of gathering information about student learning that is integrated into the teaching and learning processes (typically this is an assignment that is integrated into a course.)

External validity: the extent to which the results of a study are generalizable or transferable to other settings. Generalizability is the extent to which assessment findings and conclusions from a study conducted on a sample population can be applied to the population at large. Transferability is the ability to apply the findings in one context to another similar context.

Formative assessment: information about student learning gathered during a course or program that is used to guide improvements during the course/program. Formative assessment provides feedback at various points in order to improve teaching, learning, and curricula and to identify students' strengths and weaknesses.

Indirect assessment: occurs when measures of learning are based on students' perceptions of their attainment of learning outcomes rather than on a demonstration of their knowledge, attitudes, and skills. Surveys and interviews are generally examples of indirect assessment.

Institutional effectiveness: determines the extent to which a college or university is achieving its mission.

Norm-referenced assessment: the process of evaluating and ranking students' knowledge, skills, and behaviors relative to that of their peers. A norm-referenced test is one designed to highlight achievement differences between and among students to produce a dependable rank order of students across a continuum of achievement.

Outcome: describes knowledge, skills, or attitudes that students are expected to demonstrate. Well written outcomes are specific, measurable, achievable, realistic and timebound.

Qualitative assessment: relies on information that lends itself to interpretive criteria or descriptions rather than numbers. Examples include interviews, focus groups, and observations.

Quantitative assessment: relies on numerical scores or ratings. The emphasis is on the use of statistics, aggregated data, and numerical measurements.

Rubric: scoring tool that explicitly represent the performance expectations for an assignment. A rubric divides the assigned work into component parts and provides clear descriptions of the characteristics of the work associated with each component, at varying levels of mastery.

Summative assessment: gathering of information at the conclusion of a course or program in order to improve student outcomes for subsequent students who enroll in the course or

Resources

Websites

Resources for higher education outcomes assessment (handbooks, sample plans, guidelines for developing plans, etc.); maintained by Dr. Ephraim Schechter at North Carolina State University
<http://www2.acs.ncsu.edu/UPA/assmt/resource.htm>

Assessment List Serve: listserv@lsv.uky.edu

Classroom Assessment Techniques (CATs)

CATs adapted from Angelo and Cross:

http://tlc.eku.edu/tips/classroom_assessment/CATS.pdf

Penn State University:

http://www.schreyerinstitutione.psu.edu/pdf/Classroom_Assessment_Techniques_Intro.pdf

Field-tested Learning Assessment Guide: <http://www.flaguide.org/cat/cat.php>
Angelo, T.A. & Cross, P.K. (1993). *Classroom Assessment Techniques* (2nd ed.). San Francisco: Jossey-Bass.
Davis, B.G. (1993). *Tools for Teaching*. San Francisco: Jossey-Bass.

National Institute for Learning Outcomes Assessment

<http://www.learningoutcomesassessment.org/index.html>

(Includes the recent publication: *Gaining Ground: The Role of Institutional Research in Assessing Student Outcomes and Demonstrating Institutional Effectiveness*)

Sample rubrics

University of Oregon: <http://tep.uoregon.edu/resources/assessment/rubrics.html>

Association of American Colleges and Universities:

http://www.aacu.org/value/rubrics/index_p.cfm?CFID=35079849&CFTOKEN=71123057

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

University of Wisconsin-Stout: <http://www.uwstout.edu/soe/profdev/rubrics.cfm>

Winona State University: <http://course1.winona.edu/shatfield/air/rubrics.htm>

Bowling Green State University: <http://www.bgsu.edu/offices/assessment/page31439.html>

California State University-Fresno: <http://www.csufresno.edu/irap/assessment/rubric.shtml>

University of Texas–Austin:

<http://www.utexas.edu/academic/ctl/assessment/iar/teaching/plan/method/cats/>

University of South Carolina: <http://www.sc.edu/cte/guide/CATs/index.shtml>

University of Delaware:

http://www.ce.udel.edu/ABET/Current%20Documentation/ABET_scoring_rubrics_index.html

Linda Suskie's website includes a blog: <http://home.comcast.net/~linda.suskie/site/>

Association of American Colleges and Universities: <http://aacu.org/resources/assessment/index.cfm>

AIR webinars: www.airweb.org

Association of American Universities Data Exchange: Links to institutional assessment websites

<http://aaude.org/assessment>

Accrediting Agencies

List of programmatic, faith-related, and career-related agencies: www.chea.org/Directories

Regional Accrediting Agencies

Middle States Commission on Higher Education (MSCHE): www.msche.org

New England Association of Schools and Colleges Commission on Institutions of Higher Education (NEASC-CIHE): <http://cihe.neasc.org>

North Central Association of Colleges and Schools The Higher Learning Commission (NCA-HLC): www.ncahigherlearningcommission.org

Northwest Commission on Colleges and Universities (NWCCU): www.nwccu.org

Southern Association of Colleges and Schools (SACS) Commission on Colleges: www.sacscoc.org

Western Association of Schools and Colleges Accrediting Commission for Community and Junior Colleges (WASC-ACCJC): www.accjc.org

Western Association of Schools and Colleges Accrediting Commission for Senior Colleges and Universities (WASC-ACSCU): www.acswasc.org

Journals

Assessment & Evaluation in Higher Education: <http://www.tandfonline.com/toc/caeh20>

Assessment Update: <http://www.airweb.org/?page=727>

Practical Assessment, Research, and Evaluation: <http://pareonline.net/>

Quality Approaches in Higher Education: <http://asq.org/edu/quality-information/journals/>

Research & Practice in Assessment: <http://www.virginiaassessment.org/>

Books

Designing Effective Assessment: Principles and Profiles of Good Practice
Banta, Trudy W., Jones, Elizabeth and Black, Karen E.
San Francisco: Jossey-Bass, c2009.

Assessment Clear And Simple A Practical Guide For Institutions, Departments, And General Education.
Walvoord, Barbara E.
Hoboken: John Wiley & Sons, Inc., 2010.

Assessment Essentials: Planning, Implementing, And Improving Assessment In Higher Education.
Palomba, Catherine A., Banta, Trudy
San Francisco: Jossey-Bass Publishers, c1999

Assessment In Practice: Putting Principles To Work On College Campuses
Banta, Trudy W.
San Francisco: Jossey-Bass, c1996

Assessing Student Learning: A Common Sense Guide.
Suskie, Linda A.
San Francisco, CA : Jossey-Bass, c2009.

Assessing For Learning: Building A Sustainable Commitment Across The Institution / Peggy L. Maki.
Maki, Peggy
Sterling, Va.: Stylus Pub., c2010.

Coming To Terms With Student Outcomes Assessment: Faculty And Administrators' Journeys To Integrating Assessment In Their Work And Institutional Culture
Maki, Peggy
Sterling, Va.: Stylus Pub., 2010.

The Art and Science of Assessing General Education Outcomes: A Practical Guide
Leskes, Andrea and Wright, Barbara
Washington, D.C.: Association of American Colleges and Universities, 2005.

The Assessment of Doctoral Education: Emerging Criteria and New Models for Improving Outcomes
Maki, Peggy
Sterling, Va.: Stylus, 2006.

Assessing For Learning: Building a Sustainable Commitment Across The Institution
Maki, Peggy.
Sterling, Va.: Stylus, 2004.

AIR publications

Assessment of Chemistry, Edited by John Ryan, Ted Clark, and Alexis Collier

Assessment of Writing, Edited by Marie C. Paretti and Katrina M. Powell

Assessment in Engineering Programs: Evolving Best Practices, Edited by William E. Kelly

Assessment of Student Learning in College Mathematics: Towards Improved Programs and Courses, Edited by Bernard L. Madison

Assessment of Student Learning in Business Schools: Best Practices Each Step of the Way, Edited by Kathryn Martell and Thomas Calderon

New Directions for Institutional Research Assessment Supplement, Edited by Volkwein, J.F.

A few institutions that model effective assessment of student learning

Alverno College

Private Catholic women's college in WI.

<http://www.alverno.edu/>

Delaware Technical & Community College

Three campuses, award associate degrees, diplomas, and certificates in DE.

<http://www.dtcc.edu/>

Bowling Green State University

Large, public research university in OH.

<http://www.bgsu.edu/>

King's College

Liberal arts Catholic institution in PA.

<http://www.kings.edu/index.htm>

Mesa Community College

Large 4-campus college with on campus and online offerings in AZ.

<http://www.mesacc.edu/>

Truman State University

Public university in MO.

<http://www.truman.edu/>

Miami Dade College

Large 8-campus college that awards associate and bachelors college in FL.

<http://www.mdc.edu/main/>

Other institutions that are making progress and/or are models of success in assessing student outcomes are listed at <http://learningoutcomeassessment.org/Award-WinningCampuses.htm#CHEA>

Resources recommended by participants:

