



NATIONAL RESOURCE CENTER FOR THE FIRST-YEAR
EXPERIENCE® & STUDENTS IN TRANSITION



The First Year of College: Assessing What We Value

TELECONFERENCE #2 OF THE 2002 TELECONFERENCE SERIES

with

Thomas Angelo

Associate Provost for Teaching & Learning
University of Akron

Cecilia López

Associate Director
Higher Learning Commission of the
North Central Association
of Colleges and Schools

Linda Suskie

Director of Assessment
Towson University

Randy Swing

Co-Director, Policy Center on the
First Year of College
Brevard College

moderated by Carolyn Sawyer

THURSDAY, APRIL 4, 2002 ♦ 1:00 – 4:00 P.M. ET



Contents

INTRODUCTION	3
PANELISTS	4
SPONSOR.....	5
AGENDA	6
CURRENT TRENDS IN ASSESSMENT	7-8
STUDENT LEARNING OUTCOMES	9
STRATEGIES TO IMPROVE STUDENT LEARNING	10
ASSESSMENT OF STUDENT LEARNING	11
STRATEGIES TO MAXIMIZE ASSESSMENT QUALITY	12-13
STRATEGIES TO DOCUMENT ASSESSMENT QUALITY	14
ASSESSMENT TOOL: 3 x 4 MATRIX	15
ANALYSIS WORKSHEET	16
SOME DETERRENTS/CHALLENGES TO ASSESSMENT	17-18
MAKING PROGRESS ON ASSESSMENT GOALS.....	19-20
ORGANIZING FOR ASSESSMENT	21-22
ASSESSMENT STRUCTURES.....	23-24
MEASURES OF STUDENT LEARNING	25-27
CONSIDERING A PORTFOLIO? QUESTIONS TO ASK YOURSELF BEFORE YOU DECIDE.....	28
EXAMPLES OF PROMPTS FOR STUDENT SELF-REFLECTION ON A FIRST-YEAR EXPERIENCE	29-30
TYPOLGY OF INSTRUMENTS FOR FIRST COLLEGE YEAR ASSESSMENT	31-33
ASSESSMENT TOOLS AND TECHNIQUES	34-35
ESSENTIAL ONLINE RESOURCES ON ASSESSMENT	36-37
ESSENTIAL PRINT RESOURCES ON ASSESSMENT	38
RESOURCES	39-44

Introduction

Does your institution value student learning? Are your assessment efforts structured? Systematic? Ongoing? Sustainable? Do they constitute an integrated process that is useful for decision making? Are they focused on the most important institutional responsibility—facilitating student learning and growth? Without this focus, efforts to continually improve students' learning and academic achievement, especially during that critical first year of college, may become diffused and ineffectual at best and mired in costly bureaucratic reporting to external regulatory agencies at worst.

The expert panelists have, and will share, their renewed hope for building assessments on competencies, skills, and capacities that really matter. Using examples from institutions of various sizes and types, they will help

viewers decide on assessment strategies and tools that include what to do with assessment information once it's available.

The panel will advise participants on using nationally and locally developed assessment instruments and describe powerful multiple measures for gathering direct and indirect evidence of student learning. Panelists will present the case for their belief that all institutional constituents have a shared responsibility to make the assessment process and assessment results useful for reflective debate and informed decision making. We invite you to join this rich and optimistic discussion.

This packet contains resources intended to help the audience follow the discussion of the panelists and other participants in this teleconference. They also can be used as reference materials in your own exploration of the topic. Please let us know if you have additional questions about any of these materials. Materials contained in this packet cannot be reprinted without the written permission of the University of South Carolina.

--the staff of the National Resource Center for The First-Year Experience & Students in Transition

Have a question for the panelists?

During the teleconference, you can . . .
call (888) 531-0685, fax (803) 777-6396, or e-mail: studio1@gwm.sc.edu

Before or after the teleconference . . .

Thomas Angelo

(330) 972-8834

Linda Suskie

(410) 704-2620

Cecilia López

(312) 263-0456 ext. 105

Randy Swing

(828) 966-5401

Panelists



Thomas A. Angelo is professor of education, associate provost, and founding director of the Institute for Teaching and Learning at the University of Akron. Prior to his appointment at Akron, he had served as faculty member, administrator and/or researcher at DePaul University, Miami University, the American Association for Higher Education, Boston College, CSU Long Beach, University of California at Berkeley, and Harvard University. His publications include *Classroom Assessment Techniques* (with K. Patricia Cross, 1993) and more than two dozen articles and chapters. He has provided professional development on teaching, learning, and assessment on nearly 200 campuses and has spoken at 75 conferences in the U.S. and abroad.



Linda Suskie is director of assessment at Towson University. She is a past director of the AAHE Assessment Forum at the American Association for Higher Education and a past CHE Fellow at the Middle States Commission on Higher Education. Her 25 years of experience in higher education include work in assessment, institutional research, and strategic planning and teaching courses in assessment, educational

research methods, and statistics. Suskie has spoken, consulted, and presented workshops on a variety of topics in higher education assessment and has been an active member of numerous professional organizations and groups. Among her publications are *Assessment to Promote Deep Learning* (editor), published by the American Association for Higher Education, and *Questionnaire Survey Research: What Works*, published by the Association for Institutional Research.



Cecilia López is the associate director of the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. Before coming to NCA in 1991, she taught at Chabot College, Florida A & M University, and Arizona State University, West Campus. She serves on the Board of Trustees of the Association of American Colleges and Universities (AACU) and the Council for

the National Postsecondary Education Cooperative (NPEC) and is also a member of NPEC's Student Outcomes Policy Panel Working Group. López has served as a reviewer for *Educational Technology, Research and Development* (ETR&D) and now serves as a consulting editor for the *Assessment Update: Progress, Trends, and Practices in Higher Education*. In March 2000, she was selected by the Hispanic Caucus of the American Association for Higher Education as the first female to receive the Alfredo G. de los Santos, Jr. Award for Distinguished Leadership in Higher Education.



Randy L. Swing co-director of the Policy Center on the First Year of College, develops assessment strategies and instruments for improving the first college year. His recent work includes *Your First College Year* (YFCY), a posttest of UCLA's annual freshman survey, the *First-Year Initiative* (FYI), a national benchmarking study of first-year seminars; the First-Year Assessment Listserv; and *Proving and Improving: Strategies for Assessing the First College Year*. He also serves as fellow at the National Resource Center on The First-Year Experience and Students in Transition. Until 1999, Swing held leadership positions at Appalachian State University in assessment, advising, orientation, and first-year seminar.

the National Resource Center on The First-Year Experience and Students in Transition. Until 1999, Swing held leadership positions at Appalachian State University in assessment, advising, orientation, and first-year seminar.



Carolyn Sawyer is the creative strategist of Tom Sawyer Company, a global, full-service marketing advertising communications firm. She is frequently called on to facilitate or moderate discussions on topics ranging from education to business to healthcare. The American Business Women's Association has honored Sawyer "for inspiring the courage to create." This award-winning broadcaster is frequently sought to speak on future marketing communications trends. To learn more about the company, visit the web site at www.tomsawyercompany.com.

Sponsor

The National Resource Center for The First-Year Experience & Students in Transition at the University of South Carolina, chartered in 1986, is an outgrowth and extension of the University 101 freshman seminar course begun at USC in 1972. The Center and University 101 comprise one functionally integrated academic program, each component designed to complement the other. The Center has as its purpose the collection and dissemination of information about the first college year and other significant student transitions. This information is used to assist educators at the University of South Carolina and around the nation and world to enhance the learning, success, satisfaction, retention, and graduation of college students in transition. To that end, the Center organizes and hosts a highly influential series of national and international conferences (since 1982), seminars, workshops, and teleconferences; engages in research; and publishes a scholarly journal, newsletter, monograph series, and other publications; maintains a web site and four Internet listservs; serves as a site for hosting sabbaticals and visits from scholars and educators; houses a library resource collection; and provides telephone support and assistance for hundreds of educators annually.

Staff



Special thanks to Editorial Assistants Scott Slawinski and Lark Patterson and to Publications Assistant Sarah Huxford for their roles in the development of this packet.

Agenda

- I. What Do We Value in the First College Year?
 - a. Retention
 - b. Learning outcomes
 - c. Time on task
 - d. Peer-to-peer interaction
 - e. Faculty to student relationships
 - f. Prior experiences and characteristics
 - g. Changed beliefs and skill sets
 - h. Prioritizing what we value
- II. Learning-Centered Environments and the Connection to Assessment
- III. Assessment for Improvement
- IV. Characteristics of Good Assessment Goals

—BREAK—

- V. Considerations for Assessment Practice
 - a. What is the overall plan for assessment?
 - b. What data do you already have on your students?
 - c. Who is the audience for the assessment effort?
 1. What will convince them?
 2. What do you need to know and how will you know it?
 - d. Who is invested in the process?
 - e. Will the results be usable? If so, how will they be used?
 - f. How will results be disseminated?
 - g. When will results be disseminated? Is the dissemination plan linked to the planning and budgeting cycle?
 - h. What linkages exist between assessment and program review?

—BREAK—

- VI. Available Tools to Accomplish Your Assessment Goals
 - a. Criteria for choosing assessment tools
 - b. Usefulness of multiple measures and methods
 - c. Other issues
 1. Internal and external comparisons
 2. Standards of design, including validity and reliability
 3. Applicability to different contexts, audiences, and needs
- VII. Recommendations for the Future
 - a. At the local, campus level
 - b. At the national/state policy level

We invite participants to call, fax, or e-mail questions to the panelists throughout the broadcast.

Current Trends in Assessment

NOTES

1. Mandates for assessment at program, institution, and state levels continue to increase. Assessment is not a fad and is not going away.
2. There is increased collaboration and data sharing among colleges—especially among private institutions.
3. Institutions are “growing their own assessment talent” through faculty development opportunities and mini-grants.
4. Institutions are moving away from nationally normed cognitive tests toward locally produced instruments which closely match institutional goals and missions. While not relying on national instruments, most assessment plans include at least some data with national, regional, or institutional comparisons.
5. The trend is away from state-developed placement tests such as New Jersey’s College Basic Skills Placement Test and Florida’s CLAST.
6. Motivating students to take assessment seriously is a widespread concern. Response rates to mail-back surveys are declining. Institutions are using rewards, launching public relations campaigns about the importance of assessment outcomes, and establishing passing criterion scores to motivate students to take assessment tests seriously.
7. The use of computerized testing and web-based collection—to increase convenience and immediacy of results—is on the rise. Institutions are moving away from paper and pencil tests.
8. Assessment outcomes have been linked to funding at the state level for public institutions. They are infrequently linked to internal budget decisions. Early adapters were particularly able to leverage assessment outcomes for new programs or positions designed to address weaknesses.
9. Assessment outcomes are very rarely linked to tenure/promotion decisions or pay raises.
10. It is not clear that institutions are using all the data they already collect, yet assessment officers frequently report the need for collecting data not currently available.

Current Trends in Assessment (cont.)

11. External constituents (and senior administrators) desire simple assessment outcomes such as the institutional “average score” even though such results are often only gross measures of reality.
12. There is an increased use of course-embedded assessment—especially portfolio assessment.
13. There is a growing understanding of the need for multiple measures including student satisfaction, behaviors, self-reported gains, cognitive measures, and professional judgments.

Source: Copyright Randy L. Swing, 2002

NOTES

Student Learning Outcomes

“Should refer normally to competencies or attainment levels reached by students on completion of an academic program”

“Are properly defined in terms of the particular levels of knowledge, skills, and abilities that a student has attained at the end (or as a result) of his or her engagement in a particular set of collegiate experiences”

Learning as Development

Learning as Development: Describes student learning in terms of “growth or enhancement” and “requires some knowledge of what levels of attainment were like *before* the student enrolled”

Value-Added (“before-after” or net effects): “longitudinal ways of looking at development”

Evidence of Student Learning Outcomes

“Evidence can embrace the results of both quantitative and qualitative approaches to gathering information, both of which may be useful in judging learning.”

“To count as evidence of student learning outcomes, the information collected and presented should go beyond such things as surveys, interviews, and job placements” (i.e., indirect measures) “to include the actual examination of student work or performance.”

Source: Ewell, Peter. (2001, September). Accreditation and student learning outcomes: A proposed point of departure. *CHEA Occasional Paper*.

NOTES

Strategies to Improve Student Learning

NOTES

Increasing evidence suggests students learn most effectively when:

- ◆ They understand course and program goals and the characteristics of excellent work.
- ◆ They are academically challenged and encouraged to focus on developing higher-order thinking skills, such as critical thinking and problem solving, as well as discipline-based knowledge.
- ◆ They spend more time actively involved in learning and less time listening to lectures.
- ◆ They engage in multidimensional “real world” tasks.
- ◆ Their learning styles are accommodated.
- ◆ They have positive interactions with faculty and work collaboratively with fellow students, with all learners—students and professors—respecting and valuing each other.
- ◆ They participate in out-of-class activities, such as co-curricular activities and service-learning opportunities, that build on what they are learning in the classroom.
- ◆ Assignments and assessments are intertwined with learning activities and focus on the most important course and program goals.
- ◆ They have opportunities to revise their work.
- ◆ They reflect on what and how they have learned.

Source: Copyright Linda Suskie, 2002

Assessment of Student Learning

NOTES

“Assessment is an ongoing process aimed at understanding and improving student learning. It involves:

- Making our expectations explicit
- Setting appropriate criteria and high standards for learning
- Systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations and standards
- Using the resulting information to document, explain, and improve performance”

Source: Angelo, T. (1995, November). *AAHE Bulletin*.

The program to assess student learning should

- Emerge from and be sustained by a faculty and administrative commitment to excellent teaching and effective learning
- Provide explicit and public statements regarding the institution’s expectations for student learning
- Use the information gained from the systematic collection and examination of assessment data to document and improve student learning

Source: The Higher Learning Commission NCA, 1996

An effective assessment program should be

- ✓ **Structured** (i.e., organized; have a recognizable framework)
- ✓ **Systematic** (i.e., conceived and implemented according to a plan that is regularly updated)
- ✓ **Ongoing** (i.e., continuing rather than episodic)
- ✓ **Sustainable** (i.e., able to be maintained with the structures, processes, and resources in place after an accreditation visit)
- ✓ A **process** that **uses** assessment results to improve student learning

Source: Copyright Cecilia López, 2002

Strategies to Maximize Assessment Quality

NOTES

- ◆ Start with clear statements of the most important things you want students to learn from the program. What will they be able to *do* after they complete the program?
- ◆ Make sure that assignments and test questions are explicit. Will all students interpret your instructions and questions in the same way? Will they know exactly what you want them to do?
- ◆ Make sure that your assignments and test questions clearly relate to your key learning outcomes.
- ◆ Ask colleagues and students to review drafts of your assignments and test questions to make sure they are clear and appear to assess what you want them to.
- ◆ Ask colleagues and students of varying backgrounds to review drafts of your assignments and test questions to make sure they don't favor students of a particular gender or background.
- ◆ Pilot test the instrument with a small group of students before administering it to everyone. Check the responses to make sure they make sense. Ask the participants if they found anything unclear or confusing.
- ◆ Use a rubric (rating scale) to score assignments, papers, projects, etc. Create the rubric at the same time you write the prompt (assignment).
- ◆ Before writing test questions, create a test "blueprint": a list of the key objectives to be assessed by the test, noting the number of points or questions to be devoted to each objective.
- ◆ Help students learn the skills needed to do the assessment task.
- ◆ Engage and encourage your students; the performance of some is greatly influenced by positive contact with faculty.
- ◆ Score student work "blind" (with student names and other identifying information removed). Score a few samples of student work a second time to make sure your scoring is consistent.
- ◆ If several faculty members are scoring student work collectively, begin with a training session at which the faculty discuss and arrive at consensus on the characteristics of meritorious, satisfactory, and inadequate papers. Have two faculty members score each student assignment independently, and compare their scores to make sure they're consistent.

Strategies to Maximize Assessment Quality (cont.)

- ◆ Collect enough evidence to get a good, representative sample of what your students have learned and can do.
- ◆ Never base any important decision on only one assessment.
- ◆ Evaluate the outcomes of your assessments and revise your assessment strategies to address any shortcomings.

Source: Copyright Linda Suskie, 2002

NOTES

Strategies to Document Assessment Quality

NOTES

- ◆ Document everything you've done to maximize assessment quality.
- ◆ Triangulate (corroborate) your findings using multiple methods and multiple measures.
 - ⇒ Scores for similar goals (e.g., scores from a writing sample, a writing test, and the professor's rating of student writing skill) should be analogous.
 - ⇒ Scores for dissimilar goals (e.g., scores from a writing sample and a quantitative reasoning test) should be less correlated.
- ◆ (If appropriate) See if results fall in expected patterns.
 - ⇒ Students at the end of the program should generally do better than students at the beginning.
 - ⇒ Students who score well at the beginning of the program should generally score well at the end.
 - ⇒ Sometimes results should predict current or future performance (e.g., grades).
 - ⇒ Sometimes students in certain majors should respond differently than students in other majors (e.g., English majors may report more writing experiences than computer science majors.).

Source: Copyright Linda Suskie, 2002

Assessment Tool: 3 x 4 Matrix

NOTES

Levels of Implementation

1) Beginning Implementation

—Assessment efforts are in their infancy, are progressing at a slower than desired state, or are stalled.

—Implementation is uneven across academic programs (technical/vocational/transfer, general education, majors, graduate/professional).

—Assessment results from direct measures (quantitative/qualitative) of general education competencies, skills, and capacities are lacking.

2) Making Progress

—Demonstrable progress is being made across each of the Patterns of Characteristics

—Institutional Culture

—Shared Responsibility

—Institutional Support

—Efficacy of Assessment

—Patterns of implementation are evident across every academic program including non-traditional programs and those programs offered off-campus and through distance modalities.

3) Maturing Stages of Continuous Improvement

—Assessment has become deeply embedded in the culture of the institution.

—Assessment results are used to inform decision making and to recommend and implement changes in teaching, curriculum, course content, instructional resources, and in academic support services.

—A “culture of evidence” exists in which the continual improvement of students’ learning is an institutional value, an institutional commitment, and an institutional priority.

Patterns of Characteristics

1) Institutional Culture

2) Shared Responsibility

3) Institutional Support

4) Efficacy of Assessment

Analysis Worksheet

Levels of Implementation and the Patterns of Characteristics: Analysis Worksheet

Where would you place your institution, division, department, or academic unit on the continuum of assessment program implementation? Using the Patterns of Characteristics as your reference, circle your response for each Pattern of Characteristics and give your reasons.

Patterns	Level One Planning	Level Two Emerging	Level Three Maturing	Evidence / Rationale
Institutional Culture: ...Collective / Shared Values	1 <input checked="" type="radio"/> 2 3	4 5 6	7 8 9	Nearly all faculty have submitted expected learner outcomes for their courses.
Institutional Culture: ...Mission	1 2 3 4	<input checked="" type="radio"/> 5 6	7 8 9	Community-wide strategic conversations about assessment of student learning and our mission statement
Shared Responsibility: Faculty	1 <input checked="" type="radio"/> 2 3	4 5 6	7 8 9	Now have an active standing committee on assessment
Shared Responsibility: Admin. & Board	1 2 3 4 5 6		<input checked="" type="radio"/> 8 9	Institution-wide "Success Indicators" reports are related to Board policies. Appointed a faculty member F/T as Director of Assessment
Shared Responsibility: Students	<input checked="" type="radio"/> 1 2 3	4 5 6	7 8 9	Students have no understanding or appreciation for assessment activities.
Institutional Support: Resources	1 2 3 4		<input checked="" type="radio"/> 6 7 8 9	We do have a line item in the operating budget set aside to support assessment policy, practices, and activities.
Institutional Support: Structures	1 2 <input checked="" type="radio"/> 3	4 5 6	7 8 9	Funding for assessment activities, practice, and assessment plans is linked to strategic plan and was recommended by the Faculty Senate and approved by the CAO.
Efficacy of Assessment	1 2 3 4 5		<input checked="" type="radio"/> 6 7 8 9	Department heads are being asked to provide measurable objectives, instrumentation, interpretation of results, and what changes have occurred as a result of faculty reflection and recommendations.

Source: Copyright Cecilia López, 2002

NOTES

Some Deterrents/Challenges to Assessment

NOTES

Pattern I: Institutional Culture

—Assessment of student learning is not included in statements of institutional mission, purposes, or educational goals.

—Assessment is not linked with mission, strategic plan, or operational planning and budgeting.

Pattern II: Shared Responsibility

—Ignoring faculty resistance (fad, add-on, “not integral to what we do,” “don’t have time to do assessment”)

—Not “owning” general education: no administrative oversight, faculty ownership, or budget

—Lack of sustained administrative understanding or support

—High turnover rate at the level of senior administration

—Students are not informed about assessment and are not involved in it meaningfully.

Pattern III: Institutional Support

—Inadequate budget to support the increased resources (human, financial, and time) required by assessment activities

—Inadequate funding for implementing action plans growing out of assessment results

—Lack of institutional research office or of expanded IR support

Pattern IV: Efficacy of Assessment

—Terms not defined or operationalized

—Lack of understanding of the purposes for and limitations of assessing student learning

Some Deterrents/Challenges to Assessment (cont.)

- Inability to assess learning beyond the level of the individual classroom
- Confusion between assessment of student learning and
 - Placement testing
 - Academic program review
 - Faculty evaluation
 - Evaluation of functional areas (institutional effectiveness)
- Confusion between DIRECT measures of student learning and...
 - Indirect Measures
 - “Non-Measures”
- Lack of published goals and measurable objectives for each academic program
- Lack of multiple measures (qualitative and quantitative) and direct measures of student learning that are aligned with specific goals and objectives
- Overreliance on indirect measures of student learning (surveys)
- Inadequate presentation and interpretation of data results
- Inadequate translation of assessment results/information into action plans
- Lack of an adequate feedback loop
- Failure to “close” the feedback loop

Source: Copyright Cecilia López, 2002

NOTES

Making Progress on Assessment Goals

NOTES

Pattern I: Institutional Culture

What do institutions say is changing?

- An emerging understanding that the fundamental purpose of assessment is the improvement of student learning
- Refocusing or revising statements of institutional and departmental missions, purposes, and goals to include an emphasis on student learning and intended learning outcomes

Pattern II: Shared Responsibility

What do institutions say is helping?

- Including information on assessment activities/results on the agendas of governing board
- Incorporating responsibility for assessment into the job descriptions of the CAO and other academic administrators
- Listing expertise in assessment as a preference or requirement for academic administrative and faculty positions
- Instituting a standing assessment committee for every academic department/unit
- Requiring departmental faculty:
 - to incorporate assessment results explicitly in formal department annual reports
 - to develop an action plan to improve pedagogy, course content, curriculum, and/or services based on assessment results

Pattern III: Institutional Support

What do institutions say is helping?

- Establishing a line item in the budget for assessment and reallocating funds from other areas to budget for assessment

Making Progress on Assessment Goals (cont.)

—Identifying assessment champions and creative leaders and providing them with the resources and time to facilitate the development and implementation of assessment

—Creating assessment publications; instituting an assessment day or week

Pattern IV: Efficacy of Assessment

How do institutions say they are using assessment results?

—To demonstrate that students have achieved stated learning outcomes

—To determine “value added”

—Prior learning (Status/Benchmarking)

—Formative learning (Progress over time)

—Summative learning (Outcomes)

—To use assessment data to plan for and implement changes (pedagogy, curriculum, student services, academic advising, instructional services)

—To inform decision makers (i.e., link assessment results with departmental/institutional planning and budgeting)

—To explore appropriate benchmarks

—To set higher expectations

Source: Copyright Cecilia López, 2002

NOTES

Organizing for Assessment

NOTES

The ideas below are based on the premise that the *good will of students is foundational to any successful assessment effort*. Bombarding students with surveys and tests is likely to discourage student participation, reduce the level of effort given, and spoil reliability of the measures. Assessment designs which judiciously use student time are more likely to produce appropriately high student effort and thus produce trustworthy data. Solutions:

1) *Use sampling*. There is often little to gain by giving every student every survey. A carefully controlled sampling procedure should produce the same results as a population study. A limitation is that samples cannot always be disaggregated to study every sub-population (the numbers get too small when the sample is divided into a lot of sub-groups).

2) *Look for connections*—remember the forest and the trees. Use surveys that cross administrative divisions. Avoid artificial divisions of the first year.

3) *Divide and conquer*. Use multiple opportunities for data collection. For example, collect one survey during summer orientation, another during move-in day, another at the first class, etc.

4) *Use existing data whenever possible*. A data audit often reveals that institutions hold great quantities of useable data which can be connected in a central dataset. Whenever possible use student identifiers to link datasets—especially to make use of demographic data already on file. Many assessment efforts start with time-consuming data collection and bog down during the data analysis phase. Using existing data reduces data collection time and increases time available to disaggregate, analyze, and report findings.

5) *Use assessment days*. Dedicate a day or half-day for assessment activities separate from class and orientation activities. Link assessment activities to a reward such as participation in early registration for the next academic term. James Madison University and Appalachian State University are model programs.

6) *Combine sampling and class administration*. An alternative to sampling the student population is to sample the population of classes. Selecting a random or stratified sample of courses/class times will capture an appropriate sample of students. Have a team of peer assistants visit the selected classes to administer surveys. Clearly this requires support from faculty and advance planning.

Organizing for Assessment (cont.)

7) *Use mail back surveys.* This low intrusion method is likely to produce a low response rate and one which is often disproportionately female. It is possible to develop a weighting system that overcomes some of the problems with low response rates and gender response rate bias.

8) *Use web-based surveys.* There is some evidence that web surveys capture a slightly higher response rate and capture more male respondents. A web survey can be placed as a gateway to other functions such as online registration for classes, parking permits, access to library databases, etc. so that another opportunity to collect data is created.

9) *Use assessment cycles.* Consider every year's entering class to be a cohort that will be surveyed on one topic. Focus the assessment effort on topic X for the entering class of 2001, and then on topic Y for the entering class of 2002, etc. Over time, each cohort adds to the institution's knowledge base. This concept reduces the data overload often produced by assessment efforts.

Source: Copyright Randy L. Swing, 2002

NOTES

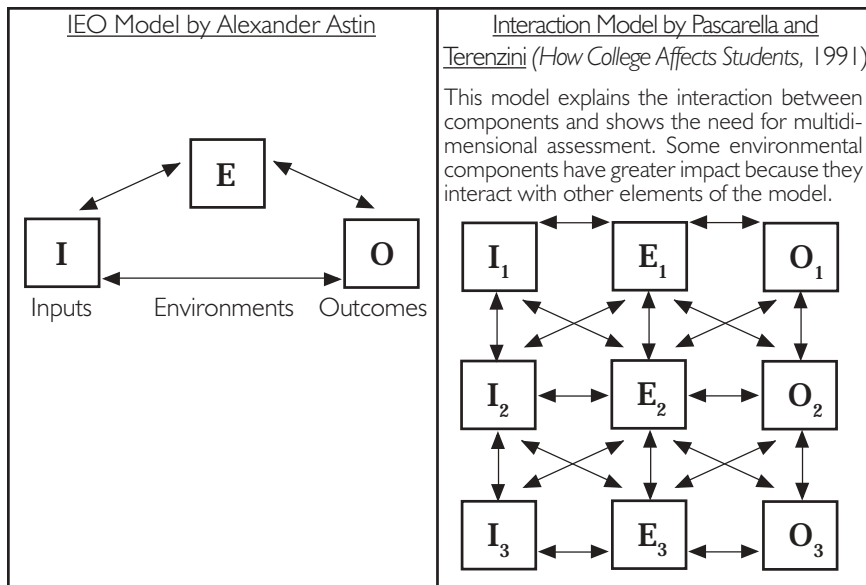
Assessment Structures

Criterion Referenced

An acceptable score/level is established based on professional judgment or “industry standards.” Assessment results are interpreted by comparison with an established criterion. Unfortunately, these analyses are frequently conducted as post hoc analyses (criteria established after the findings are known.) The focus is on the outcome with little or no concern about how, when, or where the outcome developed to the acceptable level.

Value Added

A “value added” structure requires a baseline measurement and an outcomes measurement (pretest and posttest, input and output, etc.). The difference between the two measurements is the amount of change. In a full model, the condition (environment) that created the change must also be known. The IEO and Interactional Models are examples of this structure.



Benchmarking

Benchmarking uses a cross-sectional research design where two or more populations are measured and compared. The formation of a purposefully selected comparison group is mandatory for meaningful benchmark comparisons.

- ◆ *Peer/Common Practice Benchmarking*—selected because the programs/students are similar or represent common practice across the groups

Assessment Structures (cont.)

- ◆ *Aspiration/Best Practices Benchmarking*—selected because the programs/students are recognized as outstanding or worthy of imitation.

Benchmarking is often conducted across institutions, but can also be used across treatment groups within an institution to determine if one treatment produces greater outcomes than another.

Higher education benchmarking builds from the basic assumption that selected groups were similar in the past and that any differences at the point of measurement resulted from differing levels of effectiveness arising from the educational program students completed.

Prediction

Prediction of future behavior is a form of needs analysis that is commonly used in higher education to identify students who could benefit from some intervention or who should be screened into or out of some program. Prediction is never perfect, but still helpful to the degree that it is more accurate or efficient than other forms of judgment. Prediction is usually at the individual-level, identifying specific individuals or unique groups with similar patterns of behavior.

Source: Copyright Randy L. Swing, 2002

NOTES

Measures of Student Learning

NOTES

Direct Measures

- Capstone experiences (e.g., comprehensive field projects, evaluated by interdisciplinary teams of trained faculty using an agreed-upon rubric)
- Portfolios (e.g., electronic portfolio, evaluated by interdisciplinary teams of trained faculty using an agreed-upon rubric)
- Standardized tests (e.g., Major Field Achievement Test)
- Locally developed tests (e.g., Indiana Bloomington's *Student Performance Measure*; Dort College's *Social Challenges Essay*; Estrella Mountain Community College's *Developmental Education Measure*)
- Student writing (e.g., first-year students compared with rising juniors) that is "blind" scored by a team of trained internal and external faculty reviewers
- Internal and external juried reviews (e.g., speeches, exhibitions, and performances in the arts)
- External evaluation of performance during internships based on measurable and published program objectives

Indirect Measures

Indirect measures of student learning ascertain the **perceived** extent or value of learning experiences. They include:

- Surveys: alumni, employer, and student
- Studies: graduate follow-up; persistence, retention, transfer, and graduation rates; length of time to degree
- Exit interviews of graduates and focus groups
- Enrollment trends / transcript analyses
- Job placement data
- Data on first-year courses
 - Percent whose syllabi list major learning outcomes of course

Measures of Student Learning

NOTES

—Percent whose syllabi list learning outcomes that include thinking skills (not just simple understanding of facts and principles)

—The ratio of paper-and-pencil tests to performance assessments

—Percent of first-year courses taught by full professors

—Number or percent of first-year courses with service-learning opportunities

—Number or percent of first-year courses with collaborative learning opportunities

—Number or percent of first-year courses taught using culturally responsive teaching techniques

—Percent of first-year class time spent in active learning

—Co-curricular Involvement

—Number of first-year student hours spent in community service programs

—Percent of first-year students participating in relevant extra-curricular activities (e.g., club in discipline)

—Attendance at intellectual/cultural events germane to the FYE program

Non-Measures

“Non-measures” do not provide information about learning across an academic program, although they yield other types of useful data. They include:

—Instruments designed for specialized program review such as the Michigan Program Review of Occupational Education

—Curriculum review reports

—Faculty publications and recognition

—Faculty/student ratios; the diversity of the student body

—Percentage of students who graduate with the baccalaureate in five years

—Grades and GPAs

Measures of Student Learning (cont.)

NOTES

Why List Grades and GPAs as “Non-Measures”

—Neither course grades nor GPAs are adequate or reliable measures of student learning across an undergraduate major or graduate/professional program of study.

Source: López, C. L. (1996). *Opportunities for improvement: Advice from consultant-evaluators on programs to assess student learning*. Presented at 102nd Annual Meeting of the North Central Association of Colleges and Schools, Commission on Institutions of Higher Education. Retrieved February 1, 2002 from <http://www.ncacihe.org/resources/assessment/index.html>.

—Course grades and GPAs “tell us little of what the student has actually learned in the course” and “very little about what a student actually knows or what that student’s competencies or talents really are.”

Source: Astin, 1991. *Assessment for Excellence: The Philosophy and Practice of Assessment and Evaluation in Higher Education*. New York: Macmillan, p. 11

Insights into Why Students Are or Aren’t Learning

—Student satisfaction, collected through surveys, exit interviews, or focus groups

—Student feedback on the learning process and environment via Angelo & Cross’s *Classroom Assessment Techniques* or published surveys

—Course portfolios

—Expenditures for faculty professional development on effective first-year teaching/learning strategies

—Number and/or dollar value of grants awarded to faculty whose purpose is improved first-year student learning

Source: Copyright Cecilia López and Linda Suskie, 2002

Considering a Portfolio?

Questions to Ask Yourself Before You Decide

NOTES

1. What are the goals of the portfolio?
 - ◆ What do you want your students to learn by creating a portfolio?
 - ◆ What processes or outcomes are to be demonstrated?
 - ◆ What questions should the portfolio answer?
 - ◆ What will be your criteria for evaluating the portfolio?
2. How will students choose what to put in the portfolio?
3. How and when will work be put into the portfolio?
4. How will student and faculty reflection be ensured in the portfolio?
5. How will the portfolios be reviewed and evaluated? What are your criteria for deciding if a portfolio is a “success”? What would a successful portfolio look like?
6. Will the portfolios be graded? If so, how?
7. How and where will portfolios be stored?
8. Will the portfolios be handed on from one faculty member to another? Will students retain ownership of portfolios?
9. What are the benefits of moving toward portfolio assessment? What are the areas of concern?
10. Are portfolios a feasible practice in your program?

Source: Copyright Linda Suskie, 2002

Examples of Prompts for Student Self-Reflection on a First-Year Experience

NOTES

1. How do you feel about this program? college in general?
2. What will you say if you have a chance to speak to your friends about this program?
3. What suggestions would you give other students on ways to get the most out of this program?
4. How do you feel about yourself as a college student?
5. What are your strengths as a college student?
6. What makes a person a good college student?
7. What was the one most useful or meaningful thing you learned in this program?
8. What was your biggest achievement in this program?
9. In what area did you improve the most? What improvement(s) did you make?
10. What one assignment for this program was your best work? What makes it your best work? What did you learn by creating it? What does it say about you as a college student?
11. Describe something major that you've learned about yourself while in this program.
12. List three ways you think you have grown or developed as a result of this program.
13. What have you learned in this program that will help you continue to grow?
14. What was your favorite aspect of this program? Why?
15. What goals did you set for yourself in this program? How well did you accomplish them?
16. If you were to start this program over, what would you do differently next time?
17. What strategies did you use to learn the material in this program? Which were most effective? Why?

Examples of Prompts for Student Self-Reflection on a First-Year Experience (cont.)

18. What risks did you take in this program?
19. If you could change any one of the assignments you did for this program, which one would it be? What would you change about it?
20. What problems did you encounter in this program? How did you solve them?
21. What one question about college is uppermost on your mind?
22. Of the topics we covered in this program, which ones would you like to learn more about?
23. In what area would you like to continue to strengthen your knowledge or skills?
24. Write one goal for next semester/year and tell how you plan to reach it.

NOTES

Source: Copyright Linda Suskie, 2002

Typology of Instruments for First College Year Assessment

NOTES

Pre-Enrollment/Baseline Data

These surveys are administered in high school, during the admissions process, or during new student orientation. Survey participants report their expectations, impressions, goals, and/or hopes for the college experience, or they report their pre-enrollment behaviors and experiences.

These surveys:

- ◆ Provide baseline data - Who are our students at the point of entry?
- ◆ Form gain scores when matched with posttests
- ◆ Provide covariates and controls for advanced statistical evaluations

End of First-Year Surveys

Three new instruments—the National Survey of Student Engagement (NSSE), Your First College Year (YFCY), and the Community College Survey of Student Engagement (CCSSE)—were developed as part of The Pew Charitable Trusts accountability agenda for higher education. The NSSE and YFCY are designed primarily for four-year institutions. Both survey students near the end of their first year in college. The CCSSE is designed for two-year institutions and surveys a random sample of courses (so it is not limited to first-year students.) The NSSE is also intended for use with seniors. The YFCY survey can be used alone or linked with the CIRP Freshman Survey to form a pretest/posttest.

General Surveys of Student Behavior, Attitudes, Study Skills, Satisfaction, & Experiences

These surveys take a holistic approach by collecting information on a variety of college experiences and environments. Examples of topics:

- ◆ “average time” spent on academic and co-curricular tasks
- ◆ frequency of contact with peers, faculty, and staff
- ◆ self-reported gains in knowledge and self-confidence
- ◆ study skills such as time management and note taking
- ◆ satisfaction with college
- ◆ life management skills (e.g., relationships with roommate, parents, partners)

Surveys of Specific Services/Units/Programs

These surveys deeply investigate a particular slice of the college experience with a series of narrowly drawn and specific questions about the full range of a given service, unit, or program. Instruments may include demographic and self-report questions so that opinions can be disaggregated. Examples of available instruments include those focused on:

- ◆ academic advising
- ◆ residence life
- ◆ campus student unions
- ◆ first-year seminars

Surveys of Specific Populations

This survey group also has a narrow focus, but these instruments primarily provide information to evaluate the experiences, satisfaction, etc. of a specific group of students across a range of services, behaviors, etc. Examples of sub-population instruments include:

- ◆ adult learners
- ◆ fraternity or sorority members
- ◆ non-returning students

Placement and Academic Knowledge Surveys/Tests

These instruments are designed to test academic knowledge and skills. Unlike opinion and satisfaction surveys, these instruments usually have a right answer and the student is judged on his/her ability to select the best (right) answer. Some instruments contain a mix of discipline topics, but it is more common for tests to be designed to measure one specific knowledge domain. The use of these instruments may vary depending on the timing of the test. For example:

- ◆ Surveys given during new-student orientations are often designed to place students in the appropriate level of college courses based on knowledge at the point of admissions.
- ◆ Surveys given in the sophomore/junior year may serve as formative evaluation of progress or “gateways” to a major.
- ◆ Surveys given in the senior year may serve as summative evaluation or as a posttest of institutional effectiveness.
- ◆ In addition to knowledge testing, students may also be asked to self-report their gain in academic skills.

Typology of Instruments for First College Year Assessment (cont.)

NOTES

Admissions Tests & Research Services

The SAT and ACT are the leading examples of instruments used in admissions decisions. While the primary purpose of these instruments is to predict success in college, many have added questions about entering student characteristics, aspirations, and family demographics. These instruments are the most frequently used covariates or control variables so that learning outcomes may be fairly judged by taking into account the knowledge level of students at the point of entry. While not designed for pretest/posttest instruments, entry-level scores correlate closely with many assessment instruments.

Qualitative Assessment Tools

There are many ways to collect data from students so that their college experiences can be measured and evaluated. The use of focus groups, portfolio review, “mystery shoppers,” one-minute papers, etc. can provide important information about programs and individual student progress. The “traditional focus group” and the technology-enhanced focus group are capable of producing rich data for a stand-alone study or for merging with instrument-based datasets.

Source: Copyright Randy L. Swing, 2002

Assessment Tools and Techniques

NOTES

Instruments sorted by type

A. Pre-Enrollment/Baseline Data

- ◆ CSXQ—College Student Expectations Questionnaire (Kuh, Indiana)
- ◆ College Student Inventory Form A (Noel-Levitz)
- ◆ College Student Inventory Form B (Noel-Levitz)
- ◆ CIRP—The Freshman Survey (Astin, UCLA)
- ◆ Entering Student Survey (ACT)
- ◆ Student Needs Assessment Questionnaire (ACT)
- ◆ Survey of Current Activities and Plans (ACT)
- ◆ Survey of Postsecondary Plans (high school version) (ACT)

B. End of First-Year Surveys

- ◆ College Student Report—NSSE—National Survey of Student Engagement (Kuh, Indiana)
* also a survey of seniors
- ◆ Community College Survey of Student Engagement (CCSSE)—In pilot Spring 2002—(McClenney, University of Texas)
- ◆ Your First College Year (Sax, UCLA)—posttest to CIRP

C. General Surveys of Student Behavior, Attitudes, Study Skills, Satisfaction, & Experiences

- ◆ College Outcomes Survey (ACT)
- ◆ CSS—College Student Survey (Astin, UCLA)
- ◆ CSEQ—College Student Experiences Questionnaire (Kuh, Indiana)
- ◆ College Student Needs Assessment Survey (ACT)
- ◆ Community College Student Experiences Questionnaire (Murrell, Memphis)
- ◆ Faces of the Future (ACT/American Association of Community Colleges)
- ◆ Institutional Priorities Survey (Noel-Levitz) four-year & community college, junior college versions
- ◆ Learning and Study Strategies Inventory (Weinstein)
- ◆ PEEK—Perceptions, Expectations, Emotions, and Knowledge about Campus (Weinstein)
- ◆ Program Self-Assessment Questionnaire (ETS)
- ◆ RSVP—Student Retention Survey—(Harris International) four-year version, two-year version
- ◆ Student Development Task and Lifestyle Assessment (Student Development Associates)
- ◆ Student Opinion Survey - (ACT)
- ◆ Student Satisfaction Inventory (Noel-Levitz) four-year, junior college, two-year

Assessment Tools and Techniques (cont.)

NOTES

D. Surveys of Specific Services/Units/Programs

- ◆ College Student Unions (EBI & Association of College Unions-International)
- ◆ Financial Aid Services— (ACT)
- ◆ First Year Initiative (FYI) benchmarking (EBI)
- ◆ LCQ36—Learning Community Effectiveness Survey (Indiana)
- ◆ Resident Halls (EBI & Association of College and University Housing Officers—International sponsored)
- ◆ Survey of Academic Advising—(ACT)

E. Surveys of Specific Populations

- ◆ Adult Learner Needs Assessment Survey (ACT)
- ◆ Adult Student Priorities Survey (Noel-Levitz)
- ◆ Fraternity Survey and Sorority Survey (EBI)
- ◆ Student Instructional Report II
- ◆ Withdrawing/Nonreturning Student Survey (short & long forms) (ACT)

F. Placement and Academic Knowledge Surveys/Tests

- ◆ Academic Profile (long & short forms) (ETS)
- ◆ ASSET (ACT)
- ◆ Accuplacer & Companion (ETS)
- ◆ California Critical Thinking Dispositions Inventory (California Academic Press)
- ◆ California Critical Thinking Skills Test (California Academic Press)
- ◆ CollegeBASE (Missouri)
- ◆ College Placement Test (College Board, CPT)
- ◆ Collegiate Assessment of Academic Proficiency (CAAP)
- ◆ COMPASS/ESL (ACT)
- ◆ Cornell Critical Thinking Test (Critical Thinking Press & Software)
- ◆ Tasks in Critical Thinking (ETS)
- ◆ Watson-Glaser Critical Thinking Appraisal (Psychological Corp.)

G. Admissions Tests & Research Services

ACT

- ◆ Overview of the ACT Freshman Class Profile (free service)
- ◆ Entering Student Descriptive Report (free service)
- ◆ Prediction Service (free service)
- ◆ Retention/Attrition (free service)

SAT

- ◆ College Board Admitted Class Evaluation (free)
- ◆ College Board Placement Validity Study (free)

Source: Copyright Randy L. Swing, 2002

Essential Online Resources on Assessment

Web Resources

1. ERIC Clearinghouse on Assessment & Evaluation
<http://ericae.net>

ERIC/AE Test Locator
<http://ericae.net/testcol.htm>

Rudner, L. M. (1994). Questions to ask when evaluating tests. *Practical Assessment, Research & Evaluation*, 4(2). Retrieved February 1, 2002 from <http://ericae.net/pare/>
2. Internet Resources for Higher Education Outcomes Assessment
<http://www2.acs.ncsu.edu/upa/assmt/resource.htm>
3. National Postsecondary Education Cooperative (NPEC) Sourcebook of Assessment Information
<http://nces.ed.gov/npec/evaltests/>
4. Nine Principles of Good Practice for Assessing Student Learning
<http://www.aahe.org/principl.htm>
5. Outcomes Assessment Resources on the Web
<http://www.tamu.edu/marshome/assess/oabooks.html>
6. Policy Center on the First Year of College
<http://www.brevard.edu/fyc/>
7. Resources for Methods in Evaluation and Social Research
<http://gsociology.icaap.org/methods>

Listservs

ASSESS-L is an open list for general discussion of higher education assessment hosted by the University of Kentucky – Lexington, providing educators with announcements about new assessment instruments, opportunities to participate in pilot studies, and other information about the changing assessment landscape.

To subscribe, send an e-mail message to Listserv@lsv.uky.edu. Edit the following message with your name and include it as the body of the message: subscribe Assess First-name Last-name

The Consortium for Assessment and Planning Support (CAPS) hosts an open listserv for higher educators with direct responsibility in assessment and/or strategic planning, and CAPS members use the list to share information about campus-based assessment efforts. CAPS is a fully-moderated listserv: A volunteer moderator screens messages to capture off-topic or accidental postings.

Essential Online Resources on Assessment (cont.)

To subscribe, send a message to Listproc@appstate.edu . Edit the following message with your name and include it as the body of the message: sub CAPS First-name Last-name. More information about the CAPS List is available online: <http://www.omed.gatech.edu/caps/home.html>

The First Year Assessment List (FYA-List), hosted by the Policy Center on the First Year of College and the National Resource Center for The First-Year Experience and Students in Transition at The University of South Carolina, is dedicated to issues of assessing first-year students or first college year programs. Enrollment is open to any interested individual. The list features weekly invited essays from assessment experts. Essays are archived for ease of retrieval and formatted for easy printing. To view the archives, visit the Policy Center at <http://www.brevard.edu/fyc/listserv/index.htm>

To subscribe to the FYA-LIST, address an e-mail to listserv@vm.sc.edu and include in the text of the message the following command: subscribe fya-list yourfirstname yourlastname.

RETENTION-L discusses higher education retention issues. To subscribe, send a message to LISTSERV@ALBIE.WCUPA.EDU with the following command in the body of the message: SUB RETENTION-L.

Essential Print Resources on Assessment

Angelo, T. A. (1998). Classroom assessment and research: An update on uses, approaches, and research findings. *New Directions for Teaching and Learning*, 75. San Francisco: Jossey-Bass.

Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for faculty*. San Francisco: Jossey-Bass.

Astin, A. W., Banta, T. W., Cross, K. P., El-Khawas, E., Ewell, P. T., Hutchings, P., Marchese, T. J., McClenney, K. M., Mentkowski, M., Miller, M. A., Moran, E. T., & Wright, B. D. (undated). *Nine principles of good practice for assessing student learning*. Washington, DC: American Association for Higher Education. Retrieved February 1, 2002 from <http://www.aahe.org/assessment/principl.htm>

Banta, T. W., Lund, J. P., Black, K. B., Oblander, F. W. (1996). *Assessment in practice: Putting principles to work on college campuses*. San Francisco: Jossey-Bass.

Barr, R. B., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change*, 27(6), 12-25.

Light, R. J., Singer, J. D., & Willet, J. B. (1990). *By design: Planning research in higher education*. Cambridge, MA: Harvard University Press.

López, C. L. (1999). *A decade of assessing student learning: What we have learned: What's next?* Presented at the 104th Annual Meeting of the NCA/Commission on Institutions of Higher Education. <http://www.ncahigherlearningcommission.org/resources/assessment/index.html>

Palomba, C. A., & Banta, T. W. (1999). *Assessment essentials: Planning, implementing, and improving assessment in higher education*. San Francisco: Jossey-Bass.

Suskie, L. (Ed.). (2001). *Assessment to promote deep learning: Insight from AAHE's 2000 and 1999 Assessment Conferences*. Washington, DC: American Association for Higher Education.

Swing, R. L. (Ed.). (2001). *Proving and improving: Strategies for assessing the first college year* (Monograph No. 33). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience & Students in Transition.

Upcraft, M. L., & Schuh, J. H. (2001). *Assessment practice in student affairs: An application manual*. San Francisco: Jossey-Bass.

What research says about improving undergraduate education. (1996). *AAHE Bulletin*, 48(8), 5-8.

Resources

Print Resources

- Anderson, J. (2001). Tailoring assessment to student learning styles: A model for diverse populations. *AAHE Bulletin*, 53(7), 3-7.
- Anderson, R. S., & Speck, B. W. (Eds.) (1998). Changing the way we grade student performance: Classroom assessment and the new learning paradigm. *New Directions for Teaching and Learning*, 74. San Francisco: Jossey-Bass.
- Angelo, T. A. (1993, April). A "teacher's dozen": Fourteen general, research-based principles for improving higher learning in our classrooms. *AAHE Bulletin*, 45(8), 3-7, 13.
- Angelo, T. A. (1999). Doing assessment as if learning matters most. *AAHE Bulletin*, 51(9).
- Astin, A. W. (1993). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. New York: American Council on Education and Macmillan Publishing Co.
- Astin, A. W. (1993). *What matters in college?* San Francisco: Jossey-Bass.
- Assessment Update: Progress, trends, and practices in higher education*. [Journal]. San Francisco: Jossey-Bass.
- Banta, T. W., & Associates. (1993). *Making a difference: Outcomes of a decade of assessment in higher education*. San Francisco: Jossey-Bass.
- Barak, R. J. (1995). Using academic program review. *New Directions for Institutional Research*, 86. San Francisco: Jossey-Bass.
- Barefoot, B. O. (2000). The first-year experience: Are we making it any better? *About Campus*, 4(6), 12-18.
- Boggs, G. R. (1999, January). What the learning paradigm means for faculty. *AAHE Bulletin*, 3-5.
- Borden, V., & Rooney, P. (1998). Evaluating and assessing learning communities. *Metropolitan Universities*, 9(1).
- Boyer, E. L. (1997). *Scholarship reconsidered: Priorities of the professoriate*. Menlo Park, CA: Carnegie Foundation for the Advancement of Teaching.
- Braskamp, L. A., & Ory, J. C. (1994). *Assessing faculty work: Enhancing individual and institutional performance*. San Francisco: Jossey-Bass.
- Chickering, A. W., & Gamson, Z. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, 39(7), 5-10.
- Chickering, A. W., & Gamson, Z. F. (1991). Applying the seven principles for good practice in higher education. *New Directions for Teaching and Learning*, 47. San Francisco: Jossey-Bass.

Resources

- Cross, K. P., & Steadman, M. H. (1996). *Classroom research: Implementing the scholarship of teaching*. San Francisco: Jossey-Bass.
- Diamond, R. M. (1998). *Designing and assessing courses and curricula: A practical guide*. San Francisco: Jossey-Bass.
- Dolence, M. G., & Norris, D. M. (1995). *Transforming higher education: A vision for learning in the 21st century*. Ann Arbor, MI: Society for College and University Planning.
- Edgerton, R., Hutchings, P., & Quinlan, K. (1991). *The teaching portfolio: Capturing the scholarship in teaching*. Washington, DC: American Association for Higher Education.
- Erwin, T. D. (1998). Definitions and assessment methods for critical thinking, problem solving, and writing. [Online version]. Washington, DC: National Postsecondary Education Cooperative. Retrieved February 1, 2002 from <http://www.nces.ed.gov/npec/evaltests>.
- Erwin, T. D. (2000). *The NPEC sourcebook on assessment, Vol. 2: Selected institutions utilizing assessment results*. Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Ewell, P. (2001). Statewide testing in higher education. *Change*, 33(2), 21-27.
- Fetterman, D. M. (Ed.). (1991). Using qualitative methods in institutional research. *New Directions for Institutional Research*, 72. San Francisco: Jossey-Bass.
- Gardiner, L. F., Anderson, C., & Cambridge, B. L. (Eds.). (1997). *Learning through assessment: A resource guide for higher education*. Washington, DC: American Association for Higher Education.
- Gray, P. J., & Banta, T. W. (Eds.). (1997). The campus-level impact of assessment: Progress, problems, and possibilities. *New Directions for Higher Education*, 100. San Francisco: Jossey-Bass.
- Hansen, E. J., & Stephens, J. A. (2000). The ethics of learner-centered education: Dynamics that impede the process. *Change*, 33(5), 41-47.
- Huba, M. E., & Freed, J. E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Boston: Allyn & Bacon.
- Hutchings, P., & Shulman, L. S. (1999). The scholarship of teaching: New elaborations, new developments. *Change*, 31(5), 11-15.
- Jacobs, L. C., & Chase, C. I. (1992). *Developing and using tests effectively: A guide for faculty*. San Francisco: Jossey-Bass.
- Ketcheson, K., & Levine, J. H. (1999). Evaluating and assessing learning communities. In J. H. Levine (Ed.), *Learning communities: New structures, new partnerships for learning* (Monograph 26) (pp. 97-108). Columbia, SC: University of South Carolina, National Resource Center for The First-Year Experience and Students in Transition.
- Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels*. San Francisco: Berrett-Koehler.

Resources

- Kuh, G. D. (2001). Assessing what really matters to student learning: Inside the National Survey of Student Engagement. *Change*, 33(3), 10-17, 66.
- López, C. L. (1996). Classroom research and regional accreditation: Common ground. Special Insert, *Briefing*, 14(3), 1-4.
- López, C. L. (1996). *Opportunities for improvement: Advice from consultant-evaluators on programs to assess student learning*. Presented at the 102nd Annual Meeting of the North Central Association of Colleges and Schools, Commission on Institutions of Higher Education. Retrieved February 1, 2002 from <http://www.ncacihe.org/resources/assessment/index.html>
- López, C. L. (1998). *Assessment of student learning: A progress report*. Presented at the 103rd Annual Meeting of the NCA/Commission on Institutions of Higher Education. Retrieved February 1, 2002 from <http://www.ncacihe.org/resources/assessment/index.html>
- López, C. L. (1998). How campuses are assessing general education. *Liberal Education*, 84(3), 36-43.
- López, C. L. (1999). Assessing student learning: Why we need to succeed. *Assessment and Accountability Forum: Journal of Quality Management in Adult-Centered Education*, 9(2), 5-7, 18.
- López, C. L. (1999). General education: Regional accreditation standards and expectations. *Liberal Education*, 85(3) 46-51.
- Light, R. J. (2001). *Making the most of college: Students speak their minds*. Cambridge, MA: Harvard.
- Mathematical Sciences Education Board & National Research Council. (1993). *Measuring what counts: A conceptual guide for mathematics assessment*. Washington, DC: National Academy Press.
- Mentkowski, M., & Associates. (2000). *Learning that lasts: Integrating learning, development, and performance in college and beyond*. San Francisco: Jossey-Bass.
- Mercer, J. R. (1989). Alternative paradigms for assessment in a pluralistic society. In J. A. Banks & C. A. M. Batiks (Eds.), *Multicultural education: Issues and perspectives* (pp. 289-304). Boston: Allyn and Bacon.
- Moore, W. S. (1994). Student and faculty epistemology in the college classroom: The Perry scheme of intellectual and ethical development. In K. Prichard & R. M. Sawyer (Eds.), *Handbook of college teaching: Theory and applications*. Westport, CT: Greenwood Press.
- Morgan, D. L. (1997). *Focus groups as qualitative research*. Thousand Oaks, CA: Sage Publications.
- Nettles, M. T., Cole, J. J. K., & Sharp, S. (1997). *Benchmarking assessment: Assessment of teaching and learning in higher education for improvement and public accountability: State governing, coordinating board & regional accreditation association policies and practices*. Ann Arbor, MI: Center for the Study of Higher & Postsecondary Education.
- Nichols, J. O. (1991). *The departmental guide to implementation of student outcomes assessment and institutional effectiveness*. New York: Agathon Press.
- Nichols, J. O. (1991). *A practitioner's handbook for institutional effectiveness and student outcomes assessment implementation* (2nd ed.). New York: Agathon Press.

Resources

North Central Association of Colleges and Schools. (2000). Assessment of student academic achievement: Levels of implementation. [Addendum]. *Handbook of Accreditation* (2nd ed.) (pp. 6-13). Chicago, IL: Commission on Institutions of Higher Education. Retrieved February 1, 2002 from <http://www.ncacihe.org/resources/assessment/index.html>

Pascarella, E. T. (2001). Identifying excellence in undergraduate education: Are we even close? *Change*, 33(3), 19-23.

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.

Ratcliff, J. L., Lubinescu, E. S., & Gaffney, M. A. (Eds.). (2001). How accreditation influences assessment. *New Directions in Higher Education*, 113. San Francisco: Jossey-Bass.

Rendon, L. I., Hope, R. O., & Associates. (1995). *Educating a new majority: Transforming America's educational system for diversity*. San Francisco: Jossey-Bass.

Resnick, D., & Resnick, L. (1992). Assessing the thinking curriculum: New tools for educational reform. In B. R. Gifford & M. C. O'Connor (Eds.), *Changing assessments: Alternative views of aptitude, achievement, and instruction* (pp. 37-75). Boston, MA: Kluwer Academic Publishers.

Rogers, G. M., & Sando, J. K. (1996). *Stepping ahead: An assessment plan development guide*. Terre Haute, IN: Rose-Hulman Institute of Technology.

Rubin, H. J., & Rubin, I. S. (1995). *Qualitative interviewing*. Thousand Oaks, CA: Sage Publications, Inc.

Silverman, D. (1993.) *Interpreting qualitative data: Methods for analyzing talk, text, and interaction*. London: Sage Publications.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications, Inc.

Steen, L. A. (1992). 20 Questions that deans should ask their mathematics department (or, that a sharp department will ask itself). *AAHE Bulletin*, 44(9), 3-6.

Stenmark, J. K. (1991). *Mathematics assessment: Myths, models, good questions, and practical suggestions*. Reston, VA: National Council of Teachers of Mathematics.

Stewart, D. W., & Shamdasani, P. N. (1990). *Focus groups: Theory and practice*. Applied Social Research Methods Series, Vol. 20. Newbury Park, CA: Sage Publications.

Suskie, L. (1996). *Questionnaire survey research: What works* (2nd ed.). Tallahassee, FL: Association for Institutional Research.

Suskie, L. (2000). Fair assessment practices: Giving students equitable opportunities to demonstrate learning. *AAHE Bulletin*, 52(9), 7-9.

Swing, R. L. (2001, November 27). Assessment listservs and metalists: Treasures for your inbox. *NetResults*. Retrieved January 17, 2002 from <http://www.naspa.org/netresults/article.cfm?ID=525&category=Assessment%20>.

Resources

Tierney, W. G. (Ed.). Assessing academic climates and cultures. *New Directions for Institutional Research*, 68. San Francisco: Jossey-Bass.

Upcraft, M. L., & Schuh, J. H. (1996). *Assessment in student affairs: A guide for practitioners*. San Francisco: Jossey-Bass.

Walvoord, B., & Anderson, V. J. (1998). *Effective grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.

Wiggins, G. P. (1993). *Assessing student performance: Exploring the purpose and limits of testing*. San Francisco, CA: Jossey-Bass, 1993.

Professional Organizations Interested in Assessment

American Association for Higher Education (AAHE) Assessment Forum

Director of Assessment, Peggy Maki

One Dupont Circle, Suite 360

Washington, DC 20036-1110

Phone: (202) 293-6440, x794

E-mail: pmaki@aahe.org

Web: <http://www.aahe.org/assessment/>

Association for Institutional Research (AIR)

114 Stone Building

Florida State University

Tallahassee, FL 32306-4462

Phone: (850) 644-4470

Fax: (850) 644-8824

E-mail: air@mailier.fsu.edu

Web: <http://www.airweb.org/>

Association for Study of Higher Education (ASHE)

202 Hill Hall

Columbia, MO 65211-2190

Phone: (573) 882-9645

Fax: (573) 884-2197

E-mail: ashe@tiger.coe.missouri.edu

Web: <http://www.ashe.missouri.edu/>

Consortium for Assessment and Planning Support (CAPS)

800 University Drive

Administration Building, 373

Northwest Missouri State University

Maryville, MO 64468

Phone: (660) 562-1889

Web: <http://www.omed.gatech.edu/caps/home.html>

Resources

National Center for Higher Education Management Systems (NCHEMS)

P.O. Box 9752

Boulder, CO 80301-9752

Phone: (303) 497-0301

Fax: (303) 497-0338

E-mail: info@nchems.org

Web: <http://www.nchems.org/>

National Council for Research and Planning (NCRP)

Web: <http://www.nmsu.edu/~NCRP/>