

Guidebook for Programmatic
Assessment of Student Learning
Outcomes



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UNL Outcomes Assessment Guidebook

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Principles of Good Practice for Assessing Student Learning

American Association for Higher Education's Principles of Good Practice for Assessing Student Learning

- The assessment of student learning begins with educational values.
- Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.
- Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.
- Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.
- Assessment works best when it is ongoing, not episodic.
- Assessment fosters wider improvement when representatives from across the educational community are involved.
- Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.
- Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.
- Through assessment, educators meet responsibilities to students and to the public.

"Assessing for learning is a systematic and systemic process of inquiry into what and how well students learn over the progression of their studies and is driven by intellectual curiosity about the efficacy of collective educational practices." – Peggy Maki

"What and how students learn depends to a major extent on how they think they will be assessed" – John Biggs

6 Components of the Outcomes Assessment Process

Component 1 - Outcome: Based on how and what students have learned in your program, what should they be able to demonstrate, represent, or produce?

Component 2 – Opportunity to Learn: How are students in your program provided the opportunity to learn this outcome?

Component 3 – Question of Interest: What does your program hope to learn from its assessment of this outcome?

Component 4 – Assessment Method: What procedures and/or products will your program use to gather evidence about the learning outcome and your question of interest?

Component 5 – Sharing and Interpreting Results: What were assessment results and what conclusions did they lead you to?

Component 6 – Using Results and Interpretations: What decisions and/or actions has your program made or taken based on the results?

Component 1: Outcome

Based on how and what students have learned in your program, what should they be able to demonstrate, represent, or produce?

Guidelines for Developing an Outcome

Program learning outcomes should represent ...

- what students will learn instead of what they will be taught
- what students will demonstrate, represent, or produce because of their learning
- how knowledge and skills of the discipline are used and applied
- important quality or qualities of individuals who work in the discipline
- knowledge and skills that are developed across courses
- educational intentions at the college- and institutional-level
- collaborative and collective agreement of program faculty
- learning that could be reasonably observed and measured at the time students complete their program

Sources for Developing Outcomes

Source: Maki, Peggy (2004). Assessing for Learning.

1. Mission Statements: Draw from institutional and college mission statements and core values. What, specifically, does the institution and its programs and services believe students should be able to demonstrate based on these mission statements and core values?
2. Professional Organizations: Adapt statements developed by disciplinary and professional organizations.
3. Student Work: Derive based on collective examination of student work over time. (e.g. capstone course projects)
4. Input of Invested Groups: Identify based on interviews and dialogues among colleagues, students, employers, etc.
5. Deep and Surface Approaches to Learning: Explore how courses and educational experiences position students as learners across their continuum of learning. To what degree do we promote and value surface (e.g. memorization) and deep (e.g. analysis and synthesis) approaches to learning? How and when does the curriculum and other educational experiences position students to take a deep approach to their learning?

Approaches for Developing Outcomes

Source: Ball State University, Assessment Workbook (1999)

- 1. Have open discussions with department faculty on one of the following topics or similar topics**
 - Describe the ideal student in your program at various phases throughout your program. Be concrete and focus on those strengths, skills, and values that you feel are the result of, or at least supported and nurtured by, the program experience. Then ask:
 - What does this student know?
 - What can this student do?
 - What does this student care about?
 - List and briefly describe the program experiences that contribute most to the development of the ideal student.
 - List the achievements you implicitly expect of graduates in each major field.
 - Describe your alumni in terms of such achievements as career accomplishments, lifestyles, citizenship activities, and aesthetic and intellectual involvement.
- 2. Collect and review instructional materials**
 - Try sorting materials by the type of learning each one is designed to promote: recognition/recall, comprehension/simple application, critical thinking/problem-solving. Use any of the following:
 - Syllabi and course outlines
 - Course assignments and tests
 - Textbooks (especially the tables of contents, introductions, and summaries)
- 3. Collect and review documents that describe your department and its programs**
 - Brochures and catalogue descriptions
 - Accreditation reports
 - Curriculum committee reports
 - Mission statements
- 4. Review and react to outcomes from another unit that is similar but external**
 - Try grouping the statements into broad categories of student outcomes (e.g., knowledge, attitudes, behavior).
- 5. Use the 25 percent problem to refine or reduce a set of outcomes statements**
 - Imagine that you want to reduce program or course material by 25 percent. What goals would you keep and which would you discard?
- 6. Use a Delphi technique or modification**
 - Choose an impartial facilitator to mediate a panel discussion about possible program goals. In a brainstorming session, ask each panel member to build a list of criteria that he or she thinks is important for program goals. For each criterion, have each member anonymously rank it as: 1-very important; 2-somewhat important; or 3-not important. Place the criteria in rank order and show the (anonymous) results to the panel. Discuss possible reasons for items with high standard deviations. Repeat the process among the panelists until the panel can reach consensus. The objective is to reach consensus before writing goals and objectives.

Wording Outcomes

Source: California State University, Bakersfield, PACT Outcomes Assessment Handbook (1999)

At what cognitive level should students be able to demonstrate their learning:

Cognitive Level	Cognitive Behaviors
1. Knowledge	to know specific facts, terms, concepts, principles, and theories
2. Comprehension	to understand, interpret, compare and contrast, explain
3. Application	to apply knowledge to new situations, to solve problems
4. Analysis	to identify the organizational structure of something; to identify parts, relationships, and organizing principles.
5. Synthesis	to create something, to integrate ideas into a solution, to propose an action plan, to formulate a new classification scheme
6. Evaluation	to judge the quality of something based on its adequacy, value, logic, or use

Examples of active verbs to describe student learning outcomes:

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
define	classify	apply	analyze	arrange	appraise
identify	describe	compute	appraise	assemble	assess
indicate	discuss	construct	calculate	collect	choose
know	explain	demonstrate	categorize	compose	compare
label	express	dramatize	compare	construct	contrast
list	identify	employ	contrast	create	decide
memorize	locate	give examples	criticize	design	estimate
name	paraphrase	illustrate	debate	formulate	evaluate
recall	recognize	interpret	determine	manage	grade
record	report	investigate	diagram	organize	judge
relate	restate	operate	differentiate	perform	measure
repeat	review	organize	distinguish	plan	rate
select	suggest	practice	examine	prepare	revise
underline	summarize	predict	experiment	produce	score
	tell	schedule	inspect	propose	select
	translate	shop	inventory	set-up	value
		sketch	question		
		translate	relate		
		use	solve		

Examples Outcomes

Students can...

- identify the role that cultural diversity plays in defining what it means to be a social being.
- evaluate the validity and limitations of theories and scientific claims in experimental results.
- analyze the meaning of major texts from both Western and non-western culture.
- distinguish between correct and incorrect applications of scientific principles when given examples of each on an objective exam.
- use the conventions of Standard Written English in all writing assignments.
- clearly demonstrate an understanding of curriculum theory and standards by preparing a two-page curriculum plan and providing justification from the literature for the chosen curriculum method.
- consider and use multiple choices, beliefs, or diverse ethical frameworks when making decisions to respond to ethical dilemmas or problems.
- identify and analyze real-world ethical problems or dilemmas, and identify those affected by the dilemma.
- correctly use various measurements, data-gathering techniques, sampling, probability, and descriptive and inferential statistics to support or reject claims of size, relationship, or relative accuracy.
- create generalizations from observed patterns and develop specific examples from general statements.
- apply new and prior information to the planning and creation of a particular product or performance.
- communicate orally and in writing to business audiences, including colleagues, supervisors, and clients, in appropriate ways about business issues.
- construct a marketing plan and prepare written and oral communications appropriate to a client firm.
- conduct original biological research and report results orally and in writing to scientific audiences
- write an essay in which they select and defend a position on a debatable issues, support their position with evidence from their readings, and address counterarguments.
- review the literature and propose a research question and a research project that might move the field forward.
- recognize common biotic and abiotic stresses, their potential effects on plants at various stages or plant development, and options for reduction of stresses with minimal disturbance to the environment and human beings.
- write a five-page essay reflecting on the work of an author of their choice that presents a clear and well-organized argument and uses examples from the author's work to support the argument.

Goal Definition Worksheet

Source: Ball State University, *Assessment Workbook* (1999)

Each participating faculty member in the department should complete a copy of this worksheet. Arrange a time for all of you to sit down together to compare notes and discuss results. The final product of this exercise should be a list of three to five broad goals that describe what department faculty believe should be characteristic of graduates in the major.

1. List any department goals that you know. This information can most likely be found in the course catalog, program brochure, or department mission statement.

2. Describe your ideal student in terms of strengths, skills, knowledge and values, and identify which of these characteristics are the result of the program experience.

3. Keeping this ideal student in mind, ask what the student

a. knows

b. can do

c. cares about

4. What program experiences can you identify as making the most contribution to producing and supporting the ideal student?

5. What should every graduate of your program know?

6. What career achievements of your alumni are you most proud of?

Component 2: Opportunities to Learn

How are students in your program provided the opportunity to learn this outcome?

Guidelines for Opportunity to Learn

Opportunity to learn statements should:

- identify educational processes and experiences (e.g. courses, activities, practica) that contribute to and reinforce student achievement of the learning outcome
- consider educational philosophy, principles, theories, models of teaching, research on learning, or shared assumptions that underlie design of educational processes and experiences
- incorporate how students become acculturated to ways of thinking, knowing, and problem solving required for the learning outcome
- describe how educational processes and experience build upon each other
- indicate that student receive multiple and diverse opportunities to learn the outcome
- indicate that student receive feedback on their learning
- indicate that students have opportunity to reflect on their progress

Worksheet – Instruction and Assessment Methods in Individual Courses/Educational Experiences

Source: Maki, Peggy. Assessing for Learning (2004)

Individual submitting worksheet: _____

Course or educational experience: _____

1. List agreed-upon outcome statement or statements your course or educational experience addresses:
 - 1.
 - 2.
 - 3.
 - 4.

2. What methods of teaching and learning contribute to or foster the learning described in this outcome statement or these outcome statements?
 - 1.
 - 2.
 - 3.
 - 4.

3. What assumptions about teaching and learning should underlie these methods?
 - 1.
 - 2.
 - 3.
 - 4.

4. What assessment methods do you use to assess the learning described in the outcome statements listed under Number 1?

5. What assumptions underlie your methods?

6. What inferences can you draw from what students represent or demonstrate or produce?

Examples: Opportunities to Learn

Example 1:

The program strives at improving its student oral communication abilities. Two courses include specific content on improving oral communications. Class 110, Team Problem Solving and Leadership, is intended for the freshman year, and is highly centered on communication issues. Class 465, Professional Practice, includes carrying out mock trials, responding (orally) to Requests For Proposals, and other similar activities. The attached syllabi for Class 110 and Class 465 discuss these activities in detail.

Example 2:

Opportunity 1: Students will be introduced to expectations for professional behavior as they enter the program via the "new student orientation" process.

Opportunity 2: The student handbook will include information related to professional development, expectations of student performance, and a copy of the professional behavior measure that will be used throughout the program.

Opportunity 3: Coursework will teach, support and reinforce professional behavior on the part of students with ties to the profession's established Code of Ethics.

Opportunity 4: Faculty for targeted courses will incorporate measures of professional behavior into their syllabi.

Example 3:

The Program will have the students develop the research and writing outcome in the context of the Capstone Seminar. Students will develop their critical thinking skills in the course they use to satisfy the Logical and Critical Thinking category of the general education program and through upper-division courses in their concentration that introduce them to critical perspectives in particular fields. They also will learn critical thinking in the two courses they take to fulfill Foundations and Perspectives in the general education program (Class 455 or 456 and Class 492).

Component 3: Question of Interest

What does your program hope to learn from its assessment of this outcome?

Guidelines for Developing Question of Interest

Question of Interest should:

- state a question related to the learning outcome that the program wants to answer
- focus on the essential learning required for that outcome
- consider understandings about how people learn that outcome
- address the effectiveness of a potential program change or implemented program change on student learning

Examples: Question of Interest

Has the integration of two separate courses into one course led students to develop a more sophisticated application of the knowledge of the discipline?

Since introducing the new course have students improved their communication skills?

Do supervisor internship evaluations, faculty internship evaluations, and intern self-assessments indicate that students are able to apply the skills learned in courses when problem-solving in the field?

How might the program better integrate research experiences into the curriculum?

Do students in our program perform as well as students in similar programs at other institutions?

Are employers satisfied with skills graduates have brought to the workplace?

What skills are alumni finding the most important in their profession?

Component 4: Assessment Method

What procedures and/or products will your program use to gather evidence about the learning outcome and your question of interest?

Guidelines for Developing Assessment Methods

Methods for assessing outcomes should:

- gather evidence that will provide the best representation of the learning of interest
- detail what evidence will be gathered, how that evidence will be gathered, and who is responsible for gathering that evidence
- record and analyze data so there can be reflection on learning across all students instead of the learning of individual students
- take advantage of existing sources of information about student learning from courses
- represent problems and contexts that graduates are likely to experience after graduation
- reflect the methods used for assessing learning in the curriculum and research approaches used in the discipline
- be aligned with content of the curriculum
- provide evidence of the extent to which learning was successful across students

Defining Direct and Indirect Measures of Student Learning

Direct Measures of Student Learning

- The capstone experience
- Portfolio assessment
- Standardized tests (e.g., Major Field Achievement Test [MFAT]; the Test of Critical Thinking Ability; the Academic Profile)
- Performance on national licensure, certification, or professional exams (e.g., Professional Assessment Examination for Beginning Teachers [PRAXIS]; Federal Aviation Administration exam]
- Locally developed tests
- Essay questions blind scored by faculty across the department, division, school, or college
- Qualitative internal and external juried review comprehensive senior projects
- Externally reviewed exhibitions and performance in the arts
- External evaluation of performance during internships based on stated program objectives

Indirect Measures of Student Learning

- Alumni, employer, and graduate surveys
- Exit interviews of graduates and focus groups
- Interviews of instructors, program coordinators, residence hall leaders, and others who have direct contact with students
- Graduate follow-up studies
- Retention and transfer studies
- Length of time to degree
- SAT/ACT scores
- Graduation rates and transfer rates
- Job placement data
- Satisfaction surveys
- Self-report measures assessing students' perceptions of what they've learned
- Observing and recording students' behaviors

Advantages and Disadvantages of Potential Assessment Methods

SOURCE: American Psychological Association Online (http://www.apa.org/ed/eval_strategies.html)

In this section we examine and evaluate the value of each of the major assessment categories. We conclude the discussion of each strategy with specific recommendations to maximize the utility of the following approaches:

- a. Classroom/Course Data
- b. Individual Projects/Performance Assessments
- c. Summative Performance Assessments
- d. Self-Assessments
- e. Collaborative Assessments
- f. Interviews and Surveys
- g. Archival Measures

A. CLASSROOM/COURSE DATA

NATURE OF CATEGORY:

This collection of assessment strategies involves methods that instructors have traditionally used to judge classroom performance (e.g., essay and objective testing) as well as approaches that reflect more recent attention to assessment-driven, teaching-learning processes. These include embedded assessment strategies in which departments identify specific classes to embed assessments that are endorsed and designed by the department as well as classroom assessment techniques articulated by Cross and Angelo (1993).

OVERALL ANALYSIS

Advantages:

- +maximizes faculty autonomy and investment in student learning
- +facilitates prompt feedback
- +can provide immediate feedback to faculty about teaching effectiveness

Disadvantages:

- limited by pedagogical constraints of instructor
- can produce unreliable evaluation results
- results affected by instructor/departmental evaluation bias
- generally can promote disconnected course experiences

Recommendations:

Faculty who are new to accountability mandates often protest that other kinds of assessment activity are unnecessary. They advocate course grades as a meaningful index of student learning. Grades that reflect classroom performance do constitute one important source of data about student learning. However, most accrediting agencies recognize that solely relying on grades is not adequate evidence of learning quality. Responsible assessment plans will include strategies that make developing evidence of quality dependent on measures of particular target behaviors, rather than on more global measures such as grades.

A. CLASSROOM/COURSE DATA (continued)

OBJECTIVE TESTS

(multiple choice, true-false, fill-in-the-blank items)

Advantages:

- + displays good psychometric properties
- + facilitates rapid feedback through ease of scoring
- + develops norms
- + inexpensive
- + comprehensive
- + improves test validity through item analysis
- + facilitates differential group scoring

Disadvantages:

- usually involves testing low-level knowledge
- constructing high quality test questions difficult
- question banks are often of poor quality
- can be compromised by student test banks that may foster differential access

Recommendations:

Although constructing solid objective tests that tap deeper levels is not impossible, it is challenging. Instructors need to help students understand how objective testing can be designed to go after different levels of knowledge. Some find that teaching students Bloom's taxonomy as an organizer that faculty might intuitively use to create more targeted challenges will help students understand questions as challenging rather than picky.

A. CLASSROOM/COURSE DATA (continued)

ESSAY TESTS

Advantages:

- + showcases deeper learning, higher order thought processes
- + requires transfer, integration of learning from other sources
- + can include applications or problem-based learning
- + develops writing skills and critical thinking
- + inexpensive and easy to administer
- + faster to construct than objective tests

Disadvantages:

- questionable psychometric properties
- may disadvantage ESL, students with poor writing or thinking skills
- takes longer to grade and provide feedback
- produces narrower sample of content knowledge
- difficult to maintain consistency in evaluation across essays

Recommendations:

Despite the labor intensiveness of essay evaluation, this kind of performance effectively addresses many aspects of what we want students to learn. Critical to defensible evaluation of essays is a well-designed rubric. Instructors can benefit from training to produce reliable feedback for student performance. Careful consideration should also be given to the instructions to clarify performance expectations. Some faculty provide an array of potential essay questions as a study guide, selecting a select number of those questions to comprise the actual exam.

A. CLASSROOM/COURSE DATA (continued)

EMBEDDED QUESTIONS AND ASSIGNMENTS

Advantages:

- + saves time since assignments will already be required for the course
- + overcomes faculty resistance due to reduced intrusion of external assessment activity
- + encourages faculty to discuss common course outcomes, goals, & objectives
- + promotes shared responsibility for agreeing where embedding should occur
- + assessment phobic faculty exhibit greater comfort with embedded designs
- + obligates faculty to have public discussion about their pedagogy
- + limits demand characteristics

Disadvantages:

- can be time-consuming to coordinate effort
- may be taxing to isolate key aspects of performance
- limits faculty autonomy within the course

Recommendations:

Embedding departmental assessment measures in existing coursework will emphasize a strong relationship between course content and assessment content. Individual faculty autonomy is essentially preserved; however, the faculty must collaborate within the department and be responsible for reporting to department colleagues. That level of obligation may not be standard procedure. The department must also control, store, and protect data, including protection from misinterpretation and misuse by outside sources.

CLASSROOM ASSESSMENT TECHNIQUES

e.g., 1-minute papers, course focus groups, free-writing, etc.

Advantages:

- + promotes experimental attitude in faculty about course design
- + convenience
- + provides immediate feedback to faculty about success
- + vividly demonstrates faculty commitment to student satisfaction

Disadvantages:

- focus on teacher performance
- should be combined with other methods for full picture of student learning
- perceived to sacrifice content coverage for time required to assess
- demand characteristics may compromise validity of results

Recommendations:

Enthusiasts of classroom assessment advocate these techniques as a way of implementing continuous improvement efforts. Careful context-setting will avoid or minimize students making unfavorable judgments that the activities are potentially time-wasting, particularly when faculty members share the conclusions drawn from the assessment data with the students and make efforts to address concerns, where appropriate.

B. INDIVIDUAL PROJECTS/PERFORMANCE ASSESSMENT

NATURE OF CATEGORY:

Individual projects have historically provided students the opportunity to apply their learning in projects that make optimal use of their potential intrinsic interest in the subject matter. The category includes individual writing, speaking, and graphic and poster production. Performance assessment strategies, sometimes also referred to as *authentic assessment*, are also evaluated in this section.

OVERALL ANALYSIS

Advantages:

- + student-centered design promotes investment, motivation
- + promotes transfer of skills and integration of content
- + clear expression of knowledge base
- + engages active learning
- + encourages time outside of class
- + promotes library use
- + can provide study in depth not possible during allotted class time
- + student benefits directly from experience
- + provides venue for creativity

Disadvantages:

- time consuming and labor intensive to design and execute both for instructor and students
- may use materials wastefully (e.g., making transparencies for one speech)
- narrows content range for which student is responsible
- student variability (ability, motivation) challenges reliability and value of performance
- labor intensive for student
- cost may be prohibitive

Recommendations

The types of projects faculty choose as assessment vehicles will depend, in part, on the expertise the faculty have in evaluating works in various modes. The clear articulation of expectations will be critical to success. Specifying student creativity as a criterion will facilitate efforts that go beyond minimum achievement of criteria. Some products may involve decisions about storage space. For example, student videos may have a limited shelf-life.

B. INDIVIDUAL PROJECTS/PERFORMANCE ASSESSMENT (continued)

WRITTEN PRODUCTS (term papers, lab reports, critiques)

Advantages:

- + facilitates student command of specific area
- + provides practice in critical skill area of writing

Disadvantages:

- challenging to writing-compromised students
- labor-intensive to score and return with timely feedback
- can be plagiarized created time-consuming/strategic confrontation with serious consequences for students who are caught
- instructors can be plagued with consequences of student procrastination

Recommendations:

Many professors design writing projects in stages that promote multiple drafts. Getting feedback in stages may be easier for students to incorporate and easier for faculty to see the impact of their feedback work. Learning disabled, ESL, and other writing challenged students may require additional support. Efficient feedback can be facilitated using rubrics or style sheets. Writing projects should be tailored to the developmental level of the student. For example, beginning courses can employ letters to friends to explain a concept. Formal term papers typically work best in advanced courses. Departments may adopt a style sheet based on APA writing conventions that can help students practice consistent format strategies.

ORAL PRESENTATIONS e.g., debate, role play

Advantages:

- + builds expertise in important communication area of oral expression
- + promotes importance of sharing knowledge
- + enhances oral skills
- + Q & A promotes thinking on your feet
- + assists professor to cover course content

Disadvantages:

- may burden students with ESL, speech and language difficulties, speaking anxiety
- time consuming and time-wasting when work quality is bad or boring
- may be hard to grade

Recommendations:

Students understandably resist assignments that require them to speak in classes since public speaking remains one of our most pervasive social phobias. Success in oral presentations will depend on several elements:

- *providing lots of guidance and structure beforehand*
- *normalizing speaking discomfort and pointing out that overcoming those fears can happen only through practice*
- *specifying and sticking to assigned time limits*
- *circumscribing topic areas or requiring topic approval*
- *coaching regarding use of support technologies*
- *developing appropriate performance criteria*

B. INDIVIDUAL PROJECTS/PERFORMANCE ASSESSMENT

(continued)

GRAPHIC TEST AND DISPLAYS

(e.g., concept maps, outlines)

Advantages:

- + provides experience in applying and organizing course concepts
- + assists in thinking through organization of information
- + additional grappling with the material enhances recall
- + appeals to visual learners

Disadvantages:

- students have limited practice with displaying graphic skills
- students may not have sufficient experience in interpreting graphics
- technological sophistication will influence production quality
- may waste resources

Recommendations:

Faculty members have found some success in asking students to translate lecture input into graphic displays, such as a concept map. These strategies appeal to visual learners who may be able to encode and remember more course content by adopting this strategy.

POSTERS

Advantages:

- + hold students accountable for independent project
- + reduces grading burden compared to writing projects
- + provides opportunity to integrate communication skills (e.g., writing, graphics, oral defense)
- + can incorporate team effort
- + expert judgment, peer review can be facilitated with criteria
- + simulates typical debut venue for most psychology scholars

Disadvantages:

- may need to make special arrangements for space
- students may invest money in project for one-shot exposure
- lack of aesthetic sense may handicap poster effectiveness
- stronger social interaction skills may produce halo effect in judging quality
- numbers of posters to be judged can create quality pressures on grading
- may not motivate best effort

Recommendations:

Providing models or performance criteria will facilitate better productions. Poster sessions can be scheduled within classes or across classes as a departmental event. Awarding best of show may be a helpful strategy to enhance motivation among the best students. All-department events can become a public relations resource as well as an opportunity to work with local high school psychology teachers to recruit future students.

B. INDIVIDUAL PROJECTS/PERFORMANCE ASSESSMENT

(continued)

STRUCTURAL/SITUATIONAL ASSESSMENTS

(e.g., guided learning, in-baskets, critical situations, etc.)

Advantages:

- + provides realistic testing circumstance
- + reality engages and motivates students
- + promotes transfer of information, application
- + taps complex skills

Disadvantages:

- difficult to construct and measure
- locating designed instruments is challenging
- prone to history/context/age cohort effects
- students may rely on common sense under pressure rather than their knowledge from the course

Recommendations:

The situation should correspond closely to the learning conditions to promote the best transfer of knowledge. Evaluating performance will be facilitated by clearly developed criteria. The quality of the rubric and the training of the evaluators will influence validity. If inter-rater reliability is not high, the results will be of limited value. Rubrics will sometimes not provide for unexpected, creative responses.

C. SUMMATIVE PERFORMANCE ASSESSMENT

NATURE OF CATEGORY:

Summative assessment strategies tend to be employed for purposes of evaluating program quality rather than primarily to provide developmental feedback to students. This collection of assessment strategies include methods that involve a single episode of data collection (e.g., nationally or locally normed tests) as well as those that incorporate tracking student performance over time (e.g., portfolio, case studies, longitudinal studies. Capstone courses and internships can also be appropriate contexts for summative evaluation.

OVERALL ANALYSIS:

Advantages:

- + promotes coherence in curriculum planning
- + provides feedback loop to improve quality
- + some strategies can be adapted to student interests
- + supports to earlier curriculum recommendations (e.g., St. Mary's conference to provide vehicle for integrating learning)

Disadvantages:

- some options are labor and/or cost intensive
- students may not receive direct feedback regarding their performances, thus limiting their own gains from effort expended
- departments may ignore available data in their planning

Recommendations:

Summative procedures can be invaluable in making the case for the overall quality of programs. Although all of the methods have advantages and drawbacks, the most benefit can be gained to all constituents when students receive direct feedback regarding their summative performance. Finding out relative scores on comprehensive exams or receiving feedback regarding performance over time can assist students with career and life planning in some instances.

C. SUMMATIVE PERFORMANCE ASSESSMENT (continued)

STANDARDIZED TESTS

Advantages

- + typically one shot assessment
- + facilitates comparisons over time
- + convenient

Disadvantages

- may not reflect gains or growth across time
- exiting students may not benefit from feedback
- existing instruments may not match to the mission and goals of departments
- expensive
- students may not be motivated to do their best work
- when test occurs may not maximize true learning
- administration may not be flexible
- not student-centered
- limited faculty ownership
- verifying bad performance can be threatening to motivation
- scores may be delayed in return, reducing the impact of feedback
- there may not be a standardized test for the identified content
- can facilitate problematic comparisons to other programs (e.g., comparisons may not take into account differential resources, student characteristics, etc.)

Recommendations:

The disadvantages of the use of standardized tests can be minimized with some additional planning. Embedding the capstone test in an existing course will enhance student motivation since the student may take the experience more seriously. When student performance can also be tied to course grading, maximum motivation to do well is likely. Describing how well the existing test matched the required curriculum will encourage faculty support and student cooperation.

C. SUMMATIVE PERFORMANCE ASSESSMENT (continued)

LOCALLY DEVELOPED EXAMS

Advantages:

- + can be tailored to match curricular and program goals
- + standardizes local use
- + relatively inexpensive
- + provides opportunity to develop meaningful local norms
- + avoids specious comparison with other colleges
- + foster coherence in department about their objectives
- + speedy feedback
- + cheaper than national products
- + after initial investment, saves time in the long run
- + may be embedded in specific standard courses

Disadvantages:

- complex, time-consuming to develop
- may impede curricular change since test would need retooling after reforms
- reliance on test bank may not be adequate due to test bank quality
- vulnerable to student theft and distribution
- can be misused by comparing faculty member's areas

Recommendations:

Comprehensive local exams are very time-intensive on the front end; however, the pay-off for this activity is multiple. This strategy encourages strong collaboration across department members and will help department members learn about the academic goals of their colleagues. Security will be an important issue to keep the department test safe from test files that may exist across campus.

C. SUMMATIVE PERFORMANCE ASSESSMENT (continued)

CAPSTONE EXPERIENCES

Advantages:

- + fosters aura of importance that may motivate students throughout the curriculum
- + encourages departmental endorsement of culminating experience
- + promotes student responsibility for engaged course
- + supports program coherence for faculty and students
- + course content can be flexible
- + topical design of capstone can engage faculty in planning (e.g., seminar topics can be taught in special interest areas as long as the performance goals meet department expectations)

Disadvantages:

- high stakes performance can be impaired by performance anxiety
- typically low enrollment course is expensive to provide seats for all seniors
- faculty can generate territorial concerns over right to teach capstone
- graduation may depend on successful completion of capstone which can generate some anxiety for faculty and students when performance wobbles late in the course

Recommendations:

Departments can use capstone courses as a unique way to express special interests of the faculty. Departments should secure the support of administration for this expensive option before broad implementation. Typically, capstones tend to have small enrollments to maximize faculty-student interaction. Capstones provide a great opportunity to have the student reflect meaningfully over the course of the curriculum. Putting in place some checkpoints on the process may prevent last-minute difficulties in the capstone that can compromise graduation plans.

INTERNSHIPS/PROFESSIONAL APPLICATIONS

Advantages:

- + popular choice for students
- + provides opportunity to sample future career
- + positive public relations vehicle related to well-prepared students

Disadvantages:

- time intensive for faculty mentors to connect with on-site mentors and coordinate opportunities
- challenging to foster learning experiences across multiple sites
- poorly prepared students create public relations problems

Recommendations:

Departments may reduce the public relations strain by screening students for their readiness to represent the program in public contexts. Qualifying criteria that stress quality and quantity of course experience as well as professional expectations in the intern role can set a positive, appropriate tone. Maintaining close contact with on-site mentors can also reduce unsuccessful student performance.

C. SUMMATIVE PERFORMANCE ASSESSMENT (continued)

PORTFOLIOS

Advantages:

- + shows sophistication in student performance
- + illustrates longitudinal trends
- + highlight student strengths
- + identify student weaknesses for remediation, if timed properly

Disadvantages:

- collection will be no better than the quality of collected instruments
- time consuming and challenging to evaluate
- space and ownership challenges making evaluation difficult
- content will vary widely with students
- students fail to remember to collect items
- transfer students may not be in position to provide complete portfolio
- time intensive to convert to meaningful data

Recommendations:

Clear expectations about the purpose and collection responsibilities will help students succeed in using the portfolio method. The works that student select will be more satisfying if the students can compare to established criteria. If the faculty want student portfolios to represent student development over time, they will need to be scrupulous about setting forth the performance demand of collecting and examining works throughout the student's career. The success of the portfolio may be enhanced when students reflect on how all the pieces work together to express their learning or meet department criteria.

ASSESSMENT CENTER METHODS

e.g, in-baskets, guided problem-solving

Advantages:

- + complex tasks can enhance student motivation
- + designing relevant authentic assessment practices challenging
- + facilitates integration of diverse skills and content areas

Disadvantages:

- expensive in material preparation and time
- students may not always perceive relevance of assessment to their studies

Recommendation:

Not all disciplines may lend themselves as readily to problem solving situations that seem to be at the center of those challenges.

C. SUMMATIVE PERFORMANCE ASSESSMENT (continued)

CASE AND LONGITUDINAL STUDIES

Advantages:

- + can provide rich detail
- + level of attention can build esteem
- + builds allegiance

Disadvantages:

- transfer students may be omitted
- expensive and time-consuming
- small sample limits generalization
- attribution of historical or cohort effects may taint participant reports
- selection for tracking may influence outcome and change student experience

Recommendations:

Departments need to clarify selection criteria if only a sample of students will be tracked. The results simply may not be representative of the group as a whole. Special care must be taken to have a satisfying instrument if results will be compared across cohorts. A department member may need to coordinate this activity if the department commits to this strategy.

D. SELF-ASSESSMENT

Advantages:

- + multiple modes and variable sophistication possible
- + quality of self-assessment related to quality of content knowledge
- + flexible in format; prompts provided or not
- + might ask about change over time
- + empowers students to practice self-evaluation
- + promotes transfer of accountability to other situations

Disadvantages:

- student judgment may not be accurate
- self-assessment are prone to evaluative biases (e.g., Lake Woebegone Effect, underestimation due to self-esteem issues)
- students have limited experience being held accountable to judge their own work
- students may define assessment as job of teacher
- faculty may perceive this practice to set up more grade conflicts

Recommendations:

Students should receive feedback on the accuracy of their self-evaluations. Early assignments might fare best with more global criteria. For example, “what aspects of your performance were effective?” and “What would you do differently if you had more time?” may engage the student in being reflective. Over time, students should be able to apply more discrete criteria to their own performance, and eventually they should be able to help formulate criteria by which performances should be judge. The quality of self-assessment may be very dependent on the careful construction of the self-assessment prompts.

E. COLLABORATIVE ASSESSMENTS

RESEARCH TEAMS & GROUP PROJECTS

Advantages:

- + student-centered designs promote engagement
- + provides opportunity to practice group skills, time management
- + promotes independent work at deeper level
- + breadth of assignments can address content coverage issue
- + simulates how professional activities/achievement transpires
- + produces synergy and excitement around project completion
- + creates a venue to synthesize content bases from multiple courses

Disadvantages:

- students have limited training in group dynamics
- social loafers can tax equitable judgments about grading
- erroneous ideas that are not caught and corrected spread across group members
- challenging to faculty to judge when to redirect or rescue student groups in trouble
- time-consuming

Recommendations:

Selection of the group members will influence group outcomes. For example, some projects will work best when the groups are heterogeneous with regard to student characteristics. Other projects might be most efficient when groups are homogeneous. Students may need assistance in understanding how groups work. Their work will improve with some prompts to pay attention to the process of the group in addition to solving the problem at hand or creating the product. Students will fare best in research teams where they clearly understand group norms and expectations. For example, what are the penalties for nonparticipation? Whenever possible, students should be given feedback on the quality of their participation.

E. COLLABORATIVE ASSESSMENTS (continued)

ONLINE ACTIVITIES

(e.g., maintaining print record of interactions in chat room or other internet-based contact)

Advantages:

- + the data already exist as part of regular course
- + records trends in collaborative skill
- + tracks process
- + cheap and convenient
- + demand characteristics may be reduced
- + students have equal opportunity to participate
- + faculty monitoring can be unobtrusive
- + appeals to some students who may have greater difficulty in oral expression
- + provides archive through automatic recording
- + documents feedback for instructor on what has been covered or what is still unclear

Disadvantage:

- content analysis is time-consuming
- privacy issues can be compromised
- students may be handicapped by computer savvy and tech patterns
- faculty need to be computer savvy

Recommendations:

Instructors using online strategies may need to overcome individual differences in using this mode by requiring participation. Circumscribing the content may help to avoid some ethical challenges that result in chat room participation. Students should be informed that their discussions are being monitored for assessment purposes from the outset. This strategy may entail IRB review to confer the best protection. Faculty also need to assess ease of web access for students before making on-line participation a requirement.

F. INTERVIEWS AND SURVEYS

ATTITUDE MEASUREMENT (General Analysis)

Advantages:

- + easy to administer
- + cheap
- + easy to score
- + quick feedback
- + can be reliable but not valid

Disadvantages:

- validity hinges on good design
- may not be valid
- demand characteristics may distort results
- participants may not have good knowledge about their own attitudes
- participants may demonstrate response bias or dishonesty
- labor intensive to interpret

Recommendations:

Valid attitude measures depend on quality of design and implementation. For example, the participants must be motivated, careful, and candid to generate data that will be meaningful. Care should be exercised to produce to design appropriate measures for intended purposes that minimize sources of error (e.g., selection bias, demand characteristics, literacy challenges, etc.).

F. INTERVIEWS AND SURVEYS (continued)

SATISFACTION SURVEYS

(Alumni, Employers, Grad School Advisors, Parents, etc.)

Advantages:

- +fosters positive public relations because activity signals faculty concern for quality
- +targets of survey may be prompted to other positive actions (e.g, donations, hiring, recruitment of new students)
- +external judges may be more objective in their appraisal of student abilities, achievements
- +recurring insights may point to some problems that need remediation
- +provides important perspective on relevance of program to various occupations

Disadvantages:

- tracking down and engaging targets may be problematic
- low return rates compromise validity
- some respondents may be motivated not to tell the truth (e.g., don't want to bear bad news, demand characteristics)

Recommendations

Long surveys will influence completion rate. The return rate also provides some indication of how robust the results are. For example, in alumni surveys, the students who are most successful will be more motivated to complete the surveys and may produce an overestimate. When appropriate, a lie scale or some other strategy to verify truthfulness in response will also increase validity. In designing satisfaction instruments, instructors need to think through the quality of education from the perspective of the interview subject. Well-designed surveys are difficult to create so some pilot data may help identify trouble spots in proposed instruments.

PERFORMANCE REVIEWS

(Alumni, Employers, Grad School Advisors)

Advantages:

- + promotes evaluation based on objective appraisal of behavior
- + builds positive public relations
- + external judges may be more objective in their appraisal of student abilities, achievements
- +recurring insights may point to some problems that need remediation
- +provides important perspective on relevance of program to various occupations

Disadvantages:

- tracking down and engaging targets may be problematic
- low return rates compromise validity
- some respondents may be motivated not to tell the truth (e.g., don't want to bear bad news, demand characteristics)

Recommendations:

Departments committed to evaluating their graduate's performance from interested stakeholders are likely to find the time invested to be worthwhile, both in terms of data gathered as well as public relations impact.

F. INTERVIEWS AND SURVEYS (continued)

EXIT INTERVIEWS

Advantages:

- + provides realistic picture
- + provides catharsis
- + provides in-depth, personal perspective on experience of major
- + can be embedded in existing courses to capture broad range of student experience
- + demonstrates overt department commitment to high quality
- + may promote long-term allegiance among graduating students
- + can generate reinforcing feedback to help departments sustain effectiveness

Disadvantages:

- volunteers may have a negative or a positive agenda that may not be representative, producing a selection bias
- time-consuming to coordinate and evaluate the results
- students may not show up for discussion
- negative discussion may influence formerly neutral students to redefine their experience negatively
- completion challenge
- participants may paint too rosy a picture partially due to timing
- expensive
- results can be influenced by the quality of the interviewer and protocol

Recommendations:

Departments will need to decide on the scale and format of focus exit interviews. These activities can be conducted individually or in small groups. Departments can commit to interviewing every graduating senior or elect to sample from the group. Instructors need to determine how much credence to place on the results of group discussions with students based on sample size and representation. Questions should target the data that the department wishes to gather. The department should also determine how to interpret the results of the interview. Collaborative design of the interview protocol will promote greater enthusiasm by department members to deal with the consequences of the interview. Conducting the interviews with department faculty may influence student participation since they may be more candid with an external reviewer.

F. INTERVIEWS AND SURVEYS (continued)

FOCUS GROUPS

Advantages:

- + small discussion groups promote engagement
- + can be employed to provide feedback on a class, course, or program
- + participants can benefit directly from changes that result from their feedback
- + demonstrates overt department commitment to high quality
- + can generate reinforcing feedback to help departments sustain effectiveness
- + development of protocol can be involving for faculty
- + may tap unforeseen areas of concern

Disadvantages:

- current students may feel some pressure not be completely candid for fear of retribution
- volunteers may have a negative or a positive agenda that may not be representative
- time-consuming to coordinate and evaluate the results
- students may not show up for discussion

Recommendations:

Departments should develop a good rationale for selecting students for focus group linked to the purpose for which the group is being convened. The discussion protocol can produce both quantitative and qualitative data that can be beneficial to the department. However, student commentary in a focus group may not be representative of the typical student's experience.

FOLLOW-UP ALUMNI INTERVIEWS

(This method involves telephone follow-up to graduates to assess information other than satisfaction with the major. Graduates can be contacted and interviewed on various outcome measures, including knowledge of the major, civic practices, or other indices of interest to the department. Demand characteristics are strong in this strategy.)

Advantages:

- + facilitates spontaneous assessment of student's application of knowledge & skill
- + measures enduring learning and skill transfer
- + scope can be broad-ranging

Disadvantages:

- could be construed as deceptive practice
- might require IRB oversight

Recommendations:

Avoiding demand characteristics is a significant problem with this approach. Alumni may feel compelled to help out by inflating their accomplishments or satisfactions in response to a phone interview.

F. INTERVIEWS AND SURVEYS (continued)

EXTERNAL EXAMINERS

(Exit interviews conducted by objective, external expert)

Advantages:

- + promotes objective reports where students are assured of anonymity
- + data summary and interpretation conducted external to regular department activities
- + improves face validity of assessment activities
- + supports department courage regarding willingness to expose their practices to outsider

Disadvantages:

- expensive to employ qualified consultant
- sensitive information is at some risk for getting beyond control of department

Recommendations:

Departments may want to involve the external examiner in the construction of the interview protocol to avoid problems of drift toward the examiner's own interests and values in the interview. Qualified external examiners can be identified through the Psychology Department Consulting Bureau operated by the Society for the Teaching of Psychology.

G. ARCHIVAL MEASURES

TRANSCRIPT ANALYSIS/ANALYSIS OF TRANSFER PATTERNS (can answer questions about prerequisites, transfer patterns)

Advantages:

- + existing data
- + provides overall picture
- + trends of targeted students at particular times
- + exposes problematic trends for transfer, including drop out rates, time to degree completion, course articulation success, subsequent courses performance

Disadvantages:

- time-consuming
- potentially boring in level of detail required
- may require cooperation to gain access to data

Recommendation:

The analysis of course patterns by itself may not address directly the questions regarding quality. Transcript analysis can answer narrowly focused questions that should be well thought through to justify the time required.

SYLLABUS AUDIT

Advantages:

- + promotes coherence within the department
- + can identify areas of neglect or overemphasis
- + facilitates adoption of similar writing standards and other expectations
- + promotes student understanding of cognitive goals

Disadvantages:

- time-consuming
- may be difficult to engage all department members fully in review/consensus
- students may pay little attention to the syllabus as overall learning guide

Recommendations:

Although this practice is time-consuming, many departments find a syllabus audit is fundamental to answering all kinds of questions about the manner in which the faculty implement the curriculum.

G. ARCHIVAL MEASURES (continued)

DEMOGRAPHIC DATA ANALYSIS/ALUMNI DATABASE

Advantages:

- + facilitates thorough understanding of student body
- + prepares department for unusual trends that might affect course scheduling
- + predicts where recruitment efforts will pay off
- + points to specific remediation needs
- + identifies potential donors for ongoing program needs

Disadvantages:

- time-consuming
- possible too have too much data

Recommendation:

With careful planning, departments can execute well crafted strategies to collect data that will be useful for their planning in recruitment, retention, and fund-raising.

LIBRARY USE/WEB HITS

Advantages:

- + provides input about how seriously students take assignments
- + allows analysis of trends in use
- + presents overall picture of value

Disadvantages:

- contaminated with faculty use
- interpretation is difficult, boring, and time-consuming
- students may get sources from other than the library

Recommendations

This measure may be most helpful feedback from the library to assist in future ordering. Combining library use and web hit statistics with other measures may provide more meaningful measure.

Assessing with Surveys

SOURCE: Ball State University Assessment Workbook

Potential Survey Groups:

- **Entering student surveys** may be administered to students entering the program or entering a course. Surveys for entering students may ask questions such as why students selected the program or course and what their expectations are for the program or course.
- **Current student surveys** may be administered to all students in the program or to a sample of students at each class level. These surveys can help determine the perceptions and attitudes of students currently in the program.
- An **exiting student survey** allows the department to gather comments from graduating seniors concerning their perceptions of the department, their immediate and future plans, and if they have been able to obtain employment or acceptance into a graduate program before graduation.
- **Alumni surveys** allow departments to determine the types of jobs or graduate degrees their majors are able to obtain and the skills that are necessary for the job market or for graduate study. These surveys provide information about entry level salaries, as well as perceptions of the department after being away for some time. Alumni can also reflect on the knowledge and skills gained in the program of study.
- **Faculty surveys** allow the department to determine if there is consensus on the goals and objectives of the department, if the faculty members feel the goals and objectives are being met, the strengths and weaknesses of the program, and faculty members' expectations of students entering the program.
- **Employer surveys** enable the department to determine if their graduates have the necessary job skills and if there are additional skills which are especially sought after.

Possible Survey Questions

There are several types of data that can be obtained on a survey instrument. The department may be interested in finding information about students' perceptions of the department, levels of involvement, perceived competence at various skills, students' satisfaction, employment or education status, and faculty opinions about the department. The following are examples of questions that may be included on a survey used for the purpose of assessing the departmental major.

Entering Students

- Why did you select this program?
- What are your immediate academic goals?
- What do you expect to gain from this program?

Current Students

- Do you participate in study sessions?
- Do you participate in professional organizations?
- How satisfied are you with the organization of the curriculum?

Exiting Seniors

- How satisfied are you with your major?
- How well prepared are you for the future?
- Are you planning to go to graduate school?

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Alumni Surveys

- Are you employed full-time?
- Are you employed in the area of your major?
- Are you currently in graduate school?

Faculty Surveys

- What do you see as the strengths of the department?
- What do you see as the weaknesses of the department?

Employer Surveys

- Does the employee have the necessary skills for the job?
- In what area is the employee best prepared?
- What are areas the program should emphasize to ensure viable candidates for a position in your field?

Types of Survey Questions

Types of Questions	Use	Advantages	Disadvantages	Examples
<i>Open Ended Questions</i>	Stimulates free thought from the respondents. Elicits information that respondents can recall without difficulty when there are a very large number of possible answers and listing all of them as response choices makes answering the question difficult.	These questions stimulate free thought, solicit suggestions, probe people's memories, and clarify positions.	These questions require people to find the terms with which to express themselves. Answers may be incomplete, uninterpretable, or irrelevant. Information may be difficult to analyze.	<ol style="list-style-type: none"> 1. What should be done in order to improve the department? 2. To what professional organizations do you belong?
<i>Closed-Ended Questions With Ordered Answer Choices</i>	Determines intensity of feeling, degree of involvement, and frequency of participation. Ordered choices provide specific limits to responses.	These questions are less demanding to answer. Answers may be combined to form a multiple-item scale.	The responses may not be exhaustive.	<p>How many hours a week do you study?</p> <ol style="list-style-type: none"> a. 0-3 hours b. 4-7 hours c. 8-11 hours d. 12-15 hours e. 16 or more hours
<i>Closed-Ended Questions With Unordered Answer Choices</i>	Provides independent choices representing different concepts.	Questions of this type are often used to establish priorities among issues and decide among alternative policies.	Preferred options of all respondents may not be stated. Respondents must balance several ideas at once, especially if asked to rank 10-20 items.	<p>Rank in order of importance the following reasons for attending this university.</p> <ul style="list-style-type: none"> -Reputation of the university -Reputation of the department -Close to home -Friends attend -The size of the university
<i>Partially Close - Ended Questions</i>	Provides for responses which might be overlooked by researchers.	These questions allow respondents to give answers when the available choices do fit them.	A sufficient number of additional responses to warrant analyses may not be obtained.	<p>What are your plans for next year?</p> <ol style="list-style-type: none"> a. Continue prior job b. Start a new job c. Continue graduate study d. Other_____

Common Response Categories for Surveys

Types of Questions	Description	Advantages	Disadvantages	Examples
<i>Likert Scale</i>	This scale is used with attitude and opinion questions. Respondents are asked to indicate the degree to which they agree or disagree with statements. Statements are usually worded fairly strongly, and can be worded both positively and negatively.	Questions are easily understood and quantified. Undecided responses can be accommodated. Allows for depth of response. Provides a meaningful way to group a series of items. Overall scores can be computed.	Method is less direct than using some other answer categories that more closely match the questions.	General Studies classes are very important. __Strongly Agree __Agree __Undecided __Disagree __Strongly Disagree
<i>Semantic Differential Scale</i>	This scale is best used to describe a series of attitudes toward a complex concept. The question presents the topic or issue, and the semantic differential scale asks the respondent to choose a number between two opposite adjectives.	Generally strong at finding particularly favorable or objectionable aspects of multi-faceted issues and concepts. Provides an overall scale score (average) for the concept.	Limited applicability	Do you feel that computer instruction is: Efficient 3210123 Inefficient Useful 3210123 Useless Boring 3210123 Interesting
<i>Importance</i>	These categories can be used when you need to find the importance of goals, objectives, or activities.	These categories simplify analysis, survey construction, and data entry. Works well to force respondents to give meaningful replies.	Not much variance is allowed, and statistical uses are limited. Does not provide much discrimination between items.	1. How important is...? __Very Important __Somewhat Important __Not Important
<i>Preparedness</i>	These categories can be used when you need to find out the preparedness of respondents on different learning objectives.	These categories simplify analysis, survey construction, and data entry. Works well to force respondents to give meaningful replies especially when used in combination with importance.	Not much variance is allowed, and statistical uses are limited. Does not provide much discrimination between items.	How prepared were you...? __ Well Prepared __ Satisfactorily Prepared __ Poorly Prepared
<i>Participation</i>	This scale can be used for questions about the frequency of activities, when respondents aren't likely to know the actual number of times they participated.	Easy to complete, and works well to describe several activities which would have a wide range of expected frequencies.	Not very precise. Use numeric ranges such as 1-5, 6-10, etc. for additional precision, if the items have similar expected ranges.	How often did you attend...? __Very Often __Often __Sometimes __Rarely __Never

Assessing with Performance-Based Measures

SOURCE: Ball State University Assessment Workbook

Performance-based assessment is the process of using student activities, rather than tests or surveys, to assess skills and knowledge. Class assignments, auditions, recitals, projects, and so forth, while intended to evaluate the individual student, can be reviewed as a whole (using all or a sample) to evaluate the course. What does overall student performance on these assignments tell you about your course(s)? While performance-based projects can be designed specifically for assessment, you might consider using existing classroom projects as assessment tools.

Types of Performance-Based Assessment

- Portfolios
- Performance measures
- Assessment center method

Portfolios

(collected examples of student work over time)

Possible items to include in portfolios:

- exams (multiple choice and essay)
- research papers
- essays
- projects
- videotapes
- audio tapes

Suggestions for Using Portfolios:

- A department could keep portfolios on a sample of students in a General Studies course. Faculty members could then rate the portfolios according to the goals and objectives of the course.
- Students could be asked to submit a portfolio of their work as an admission requirement to the program. They would then be asked to maintain their portfolios as they progress through the major, adding selected materials from each course that they take. The portfolios would allow the department to chart the progress of their majors.
- To assess writing skills in the major, a department could choose to keep samples of student writing from all the courses in the major. Are students getting ample opportunity to write? What types of writing assignments are being required? How does the writing ability of the sophomores compare to the skills of the seniors? Is there one particular course in the program that seems to have a significant impact on the writing skills of the majors?

Performance Measures

(using examples of students' writing, presentations, or projects for assessment)

Suggestions for Using Performance Measures for Assessment:

- A common writing assignment, such as an essay or research paper, can be used to examine more than one aspect of a General Studies course. An initial reading of a paper can assess students' understanding of the course content. A second reading could evaluate writing skills, while a third reading could explore critical thinking skills. Similarly, a computer project can be used to evaluate both students' knowledge of course content as well as the level of computer competency.
- Samples of students' art or photographic work could be displayed on a classroom wall. Faculty members can then examine the work against a set of criteria and make judgments about the strengths and weaknesses of the program. Accreditation teams sometimes use this approach.
- If students are required to perform, as in a dance, music, or speech course, the performances could be videotaped. A team of faculty members would review a sample of the performances against a set of criteria.

Assessment Center Method

(simulation of real-life situations in which student performance is evaluated by expert judges)

This method of assessment is a type of performance measure that attempts to create a professional situation in which students participate. While this type of activity does evaluate individual student performance, its role as an assessment activity is to provide feedback to the department on the effectiveness of the program.

Suggestions for Using the Assessment Center Method:

- Ask students to prepare a business plan and present it to a panel of faculty members as if they were prospective clients. The faculty members then make judgments about the quality of the students' work.
- Assign students roles in a fictitious situation particular to the area of study. For example, to assess a social work course, the students could be asked to assume the roles of client and social worker. Observe and rate the student performances against a set of criteria that are determined by the objectives of the course.

Analyzing Performance-Based Assessment

1. Begin by collecting a representative range of student work – from marginal to outstanding – and determine what learning appears to be taking place and what is not. This range can be the basis for creating guide for scoring this work.
2. Identify a group of "exemplary students," collect their course work or observances of their performances, ask the students to describe what experiences in the course helped them the most and then do an analysis of the interviews and course work.
3. Steps in developing a rubric for scoring work:
 - Identify the qualities that make the difference between good and poor work
 - Decide on how many levels of achievement you will illustrate (3 or 4). For example: exemplary, satisfactory, unacceptable; exemplary proficient, marginal, unacceptable; exemplary, good, acceptable, unacceptable
 - For each criterion, write a clear description of each level of achievement.

Assessing with Institutional Data

SOURCE: Ball State University Assessment Workbook

What departmental data is routinely available?

- Student Credit Hours - by program and by department
- Student Contact Hours - by department
- Enrollments - by course and by department
- Faculty Full-Time Equivalents - by position status and function by department
- Number of Sections Taught - by course
- Number of Majors
- Frequency Distribution of GPAs in the Major
- Number of Degrees Produced - by type and student program
- Frequency Distribution of class sizes and average class size

Possible Questions for Using Data with Course-related Assessment

- Is this a popular course? What is the enrollment trend for this course?
- Are the students performing at the expected grade level?
- Are the class sizes too large?
- Are the classes being taught by full-time or part-time faculty?
- Did the course affect program enrollment?
- Does the course attract students to the major?

Suggestions for Uses of Data with Program-related Assessment

- Is the program growing or shrinking?
- What is the grade point average of majors?
- What percent of majors is retained in the program?
- What percent of majors graduated from the program?

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Checklist of Available Student Data on SIS+

Screen No.	Basic Information	Screen No.	Admission Test Scores
110	Student name	221	SAT Scores (Math, Verbal, TSWE, Reading, Vocabulary)
110	Class level	221	ACT Scores (Composite, English, Math, Social Science, Natural Science)
1A3	Gender		
1A3	Race		
1A3	Date of Birth	Screen No.	Academic Summary
110	Resident Status	GRD/1E1	Hours Earned
1A3	State of Residence	GRD/144	Hours Transferred
1A3	County of Residence	1E1	Cumulative Grade Point Average
1A3	Citizen		
119	Honors Student Status	Screen No.	Semester Summary
110	Entry Date	GRD	Hours Registered by Semester
144	Transfer Status		
		Screen No.	Degree Objective
Screen No.	Admission Data	110	Degree
136	High School	110	Year Degree Expected
136	Date of HS Graduation		
209	High School Rank in Class	Screen No.	Program
209	High School Class Size	111	Department of Major
		1E1	Program Type
		1E1	Program
		1E1	Term Entered Program

Assessing with Interviews/Focus Groups

SOURCE: Ball State University Assessment Workbook

Interviews

Types of interviews

- **Standardized interview with closed responses:** In this type of interview, a set of standardized questions is prepared and asked of each participant. The role of the interviewer is simply to ask the questions and record the responses. The only information that is gathered is that which is specifically asked for, almost a verbal version of a paper and pencil survey.
- **Standardized interview with open responses:** This type of interview also relies on a set of standardized questions, but the questions are designed to elicit open-ended responses and the participant is encouraged to talk at length on the items. The interviewer uses the questions to guide the interview.
- **Non-standardized interview:** This last method is essentially a conversation between the interviewer and the participant in which they agree to discuss the participant's views of the subject matter. There is no set of questions to be asked – the interviewer merely probes the participant on his/her opinions or perceptions on a particular topic.

Suggestions for Using Interviews:

- Faculty members can be interviewed on their perceptions of the strengths and weaknesses of the department or of a particular program within the department. The department could generate the questions for the interviews or suggest the topics that they would like to have covered. A person from outside the department could be called in to administer the interviews and summarize the results.
- A telephone interview can be conducted with department alumni.
- Graduating seniors can be asked to participate in an individual exit interview.

Focus Groups

What is a focus group?

Focus groups are group discussions where the moderator supplies the topics and monitors the discussion. The purpose is to gather information about a specific or focused topic in a group environment, allowing for discussion and interaction by the participants.

When should focus groups be used?

Focus groups are "fundamentally a way of listening to people and learning from them." (Morgan, 1998, p. 9) They can be used:

- to examine attitudes or opinions
- to explore why opinions are held
- to identify the strengths and weaknesses of programs
- to interpret results from other assessment projects
- to provide information for designing surveys

Focus groups should not be used:

- For assessment that requires statistical projections or statistically representative data: Focus groups are not an effective method for measuring frequencies or counts, nor will focus groups tell you how people will behave. (Palomba & Banta, 1999; Morgan, 1998)
- In situations where participants are not comfortable with each other: For example, faculty may not be comfortable discussing program weaknesses with students.
- In situations where focus groups may "imply commitments you cannot keep." (Morgan, 1998, p. 60)
- In situations that are emotionally charged, especially if additional information may just exacerbate the difficulties. (Kreuger, 1994)

What are the important issues in planning a focus group?

Focus Group Questions (Stewart & Shamdasani, 1990; Kreuger, 1994)

- Concrete, specific, focused, simplified, and open-ended
- Go from more general to more specific
- Ordered by importance to research project
- Instead of "why" use phrases such as, "what prompted you", "what influenced you", or "what features"
- Ensure all members share their opinions by asking group write word or phrase on index card and then share their responses
- Ask group to generate lists or brainstorm ideas
- Asked to rate program then explain what led to their rating
- Sentence completion (e.g. What I liked best about this program was...)

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Component 4: Assessment Method

Qualities and Skills of a good moderator (Krueger, 1998 & Greenbaum, 1988)

- Understands group process
- Good Communicator
- Good Listener
- Facilitator, not a performer
- Excellent Memory
- Flexible
- Open to new ideas
- “Big-picture” thinker
- Control over personal reactions
- Enthusiastic
- Diplomatic
- Friendliness and sense of humor
- Manage Time effectively

Selecting Participants

- Ideal size is usually 8-15 people.
- Participants should be comfortable talking to one another
- Homogenous group is useful for ease of interpretation
- Reward and incentive used to encourage participation (i.e. extra-credit, free food, etc.)

Location & Recording

- Comfortable room and seating arrangements
- Free of noise and interruptions
- Use audio or video recording (although might stifle openness)
- Written notes are good backup

Assessing with Other Methods

SOURCE: Ball State University Assessment Workbook

Transcript Analysis

(using data from the student database to examine the course-taking or grade patterns of students)

Use transcript analysis when:

- you would like a "snapshot" of a group of students at a particular point in time.
- you need to know what classes students took and in what order.
- you are interested in patterns in student grades.

Transcript analysis allows the department to obtain a more complete picture of their students. Are majors who follow a particular course-taking path through their college years more likely to succeed? Do the department's General Studies courses attract students to the major program? What path through the General Studies program seems to be most effective for the department's majors?

Suggestions for Using Transcript Analysis:

1. A department may be interested in determining if students change majors as a result of taking General Studies courses offered in the department. The university student database would allow the department to relate a student's choice of major to the initial course they took in that department.
2. A department may want to explore the entering qualifications of students enrolled in a required qualifying course for their majors. The database could be searched to select the students enrolled in the course and report information on entering qualifications (i.e., grades in General Studies English or Math courses).
3. Investigating the General Studies course-taking pattern of their majors is often useful to departments. The student database may be used to produce a report which tracks department majors, listing the General Studies courses taken by each with term and grade awarded.

Unobtrusive Measures

-observation or keeping records of students' use of facilities and services. This form of assessment provides data that can be correlated with test scores and/or course grades.

Use unobtrusive measures when:

- you are interested in how students study.
- you are concerned about the effectiveness of study sessions or other supplements to classroom activities.
- you are focusing on the relationship between out-of-class behavior and in-class performance.

While test scores and survey results can indicate how much students are learning and how they feel about that process, observing the behavior of students can tell you quite a bit about how they learn. What do students do outside the classroom? Which out-of-class behaviors and activities seem to lead to better in-class performance?

Suggestions for Using Unobtrusive Measures:

An indicator of student participation in a course can be how frequently students are using services such as study sessions, department computer labs, or reserved supplemental readings in the library. Even tracking class attendance can be useful.

A department can determine how frequently students attend museums, concerts, plays, recitals, lectures, etc.

It may be helpful to a department to know how frequently students visit the department advisor, chair, or other faculty members. Are successful students more likely to seek advice or guidance? Of interest, too, may be how often students in the department make use of facilities such as the Learning Center.

Review of Current Curriculum Materials

(systematic review of course syllabi, textbooks, exams, and other materials)

Use curriculum materials when:

- you want to clarify learning objectives.
- you want to explore differences and similarities between sections of a course.
- you want to assess the effectiveness of instructional materials.
- Basic to any instruction are the materials used in the classroom – textbooks, hand-outs, exams, and so forth. A review of these provides invaluable information to enhance any assessment effort.

Suggestions for Using a Review of Curriculum Materials

Faculty members can review the current course syllabi for the department's General Studies course to determine if the course is meeting the goals and objectives that were established for it.

A review of the course exams for the different sections might reveal enough standardization of exam items to allow those exams to be used to assess the course. For example, five different instructors who are each designing an exam for their section of a course could be asking similar questions on common subjects. Those common items could be used as an assessment tool much the same as if a standardized exam had been administered to all five sections.

Anecdotal Records, Logs, and Journals
(maintaining records of classroom activities, students' responses, or faculty impressions)

Use anecdotal records when:

- you are concerned with how students and faculty react to particular instructional methods.
- you are piloting new textbooks or other materials.
- you are interested in students' perceptions of certain aspects of the course.

While assessment usually relies on systematic collection of information, often the more informal observations prove useful. What is going on in the classroom? What works and what does not?

Suggestions for Using Anecdotal Records, Logs, and Journals

1. Faculty members can maintain journals on their experiences in the classroom. If, for example, a new textbook is introduced, a journal can be kept to record the students' responses to the book, as well as the instructor's reaction.
2. Students can be asked to evaluate visiting speakers or instructors.
3. Faculty members can ask students to write reaction papers in response to classroom activities, videotapes, field trips, and so forth. Did students find the activities helpful? How could the activities be improved?

External Examiners
(using an individual or group of individuals from outside the department to provide an objective assessment of a course or program)

Use examiners when:

- you need an objective observer of your program.
- you want an assessment expert to provide insight and advice.

Asking someone from outside the department or university to observe and respond to particular aspects of a program or course can yield valuable information that could not otherwise be obtained.

Suggestions for Using External Examiners

1. A department may invite a member of the English faculty in as a consultant to provide insight into the department's use of writing in the major. The consultant can answer questions such as: Does the program provide ample opportunities for students to write? How can the department increase those opportunities? How could the department effectively assess their students' writing ability?
2. An external evaluator from another university can be invited to moderate a focus group or to assist a planning session on designing a departmental assessment plan.

Component 5: Sharing and Interpreting Results

What were the assessment results and what conclusions did they lead you to?

Guidelines for Sharing and Interpreting Results

Sharing and Interpreting Results should...

- confirm the analysis was conducted as suggested under assessment method
- evaluate the effectiveness and limitations of the assessment process
- display or describe results from the assessment method that relate to learning outcome and question of interest
- consider audience when presenting results
- engage appropriate stakeholders in the discussion of the results before final interpretations are formed
- describe how results were shared with appropriate stakeholders and how those discussions informed major findings
- provide a general summary of major findings identifying areas of improvement as well as strengths

Defining Analysis and Interpretation

*Adapted from: Ball State University, Assessment Workbook (1999) &
Southeast Missouri State University, Busy Chairperson Guide to Assessment (2001)*

Analysis: Describes general trends and points out differences and similarities in the data or evidence.

Example: Students who had taken the Theories of the Discipline courses were rated as more proficient at building a rationale for their research project in the senior capstone course.

Interpretation: Relates data or evidence to the learning outcome they are supposed to measure, explores the relationships between multiple measures of an outcome, qualifies, amplifies, draws inferences, and evaluates.

Example: All majors need to learn content covered in the Theories of the Discipline courses so they can produce research papers of appropriate quality for the discipline.

Steps in Sharing Assessment Results/Evidence

*Adapted from: Ball State University, Assessment Workbook (1999),
Southeast Missouri State University, Busy Chairperson Guide to Assessment (2001), &
University of Massachusetts – Amherst, OAPA Handbook*

1. Who should share and discuss results with?

The first step in assuring that results are used is to share them with departmental faculty members. Faculty members who were involved in the assessment efforts could present their findings to all faculty members in the department or a smaller group of faculty such as those on a departmental/program curriculum or planning committee. The department's policies and practices for curriculum adoption, review, and evaluation might indicate what faculty groups should discuss the assessment results.

Depending on the department's assessment needs, further reports or presentations could be shared and discussed with a variety of additional audiences. Possibilities include:

- Students in department/program
- Alumni
- Employers
- Advisory Boards
- Colleagues at other institutions

2. When should results be shared?

Results should be shared and discussed with relevant stakeholders (e.g. faculty, students, employers, alumni, advisory boards) prior to making final recommendations on how the results are interpreted and used. Establishing a set calendar for these discussions each semester or year is recommended. For example, some departments have dedicated one of the department's monthly faculty meetings or established yearly planning retreats just for the purpose of discussing their assessment results.

3. What should be shared?

When sharing results you want to consider who is the audience and what do they need to know to make conclusions about the assessment process and its results. At its most basic, when considering results these audiences should know:

- What was assessed?
- How was it assessed?
- Why was it assessed?
- What were the results?

4. How could results be shared?

When sharing results you could record actual results or share expected or unexpected findings. Which approach you use depends on your audience, type of assessment methods used, and the kind of discussion that needs to take place. For most audiences, a simple descriptive report with a visual display is sufficient. See “**Chart & Table Examples**” for ideas on how to visually display results.

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Component 5: Sharing and Interpreting Results

Keep in mind that when sharing results that analysis and interpretation are essential components of assessment, and often audiences will want to know what you make of the results.

5. What could be discussed?

The results of your assessment activities can be used to generate a discussion. When results are shared with faculty or other audiences there should be some attempt to reach conclusions about the assessment process and the results. Below are several questions that could be considered:

Evaluating the Assessment Process:

- Did the process define as well as answer questions that are important to understanding and enhancing student learning? If not, why not?
- Were faculty and students motivated to participate in the assessment process? If not, why not?
- Were the assessment methods easily implemented? If not, why not?
- In what ways was the assessment process especially effective?
- What should (or will) be change about the process? Why?

Reporting Results:

- What is the most valuable insight gained from the assessment results?
- What are three important conclusions about the results that should be shared with others?
- What weaknesses (or strengths) in student learning are indicated by the assessment results?
- Are there skills where performance is adequate, but not outstanding, and where the program would like students to attain a higher level of performance?
- What do the results suggests about curriculum, co-curriculum, advising, or pedagogy?
- What do the results suggest about how the program needs to improve in the future?

6. How long should results be kept?

It is a good idea to keep assessment results for a few years. Departments often find it useful to do longitudinal studies of assessment projects. What trends or patterns are revealed when looking at responses from alumni or graduating seniors over time? As the job market, the economy, technology, or even the department itself change with time, so will the results of assessment activities. Also, many program reviews and accreditations are on cycles. Academic program, state commission or accreditation reviews may be every five to ten years. Similarly, some departments do alumni surveys annually, while others prefer to do them every five years. To know what has been done before, to learn from past mistakes, or to do longitudinal studies, it may be advisable to keep the results of assessment projects for a period of three to five years.

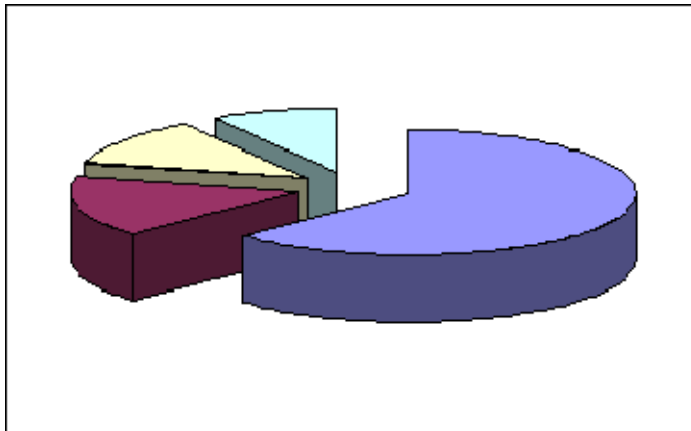
Chart & Table Examples

Adapted from: Ball State University, Assessment Workbook (1999) & Southeast Missouri State University, Busy Chairperson Guide to Assessment (2001)

Charts or tables could be used to visually share assessment results for discussion. Below are several examples of charts and tables. A program could use any one of these types or create their own. Remember that data should be collected so as to supply credible information about student achievement and to identify relative strengths and weaknesses. These types of displays help the reader take in the results of assessment at a glance. However, these displays should never be used without some comment. Though there may be instances where visual displays are not appropriate, most data, including qualitative data, can be reported if they are being analyzed within an explicit conceptual framework.

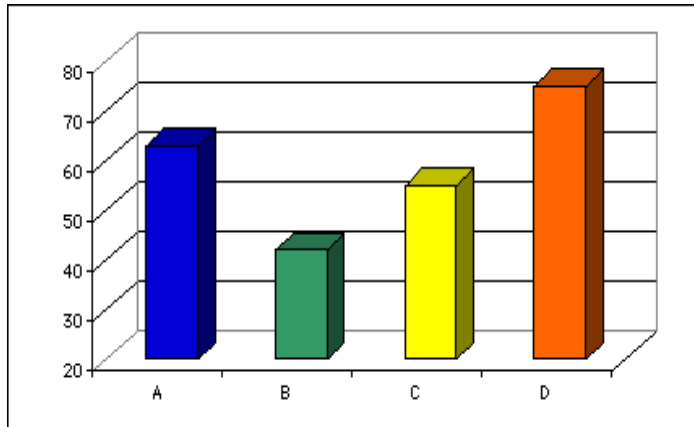
Chart Examples

Pie Chart



Pie charts are an excellent way to show parts of a whole. They emphasize general findings, but do not make small differences apparent. Pie charts with more than five or six slices should be avoided. For this reason, pie charts are used only with categorical data with a relatively small number of values or categories. Use a bar chart when you are showing several categories.

Bar Chart

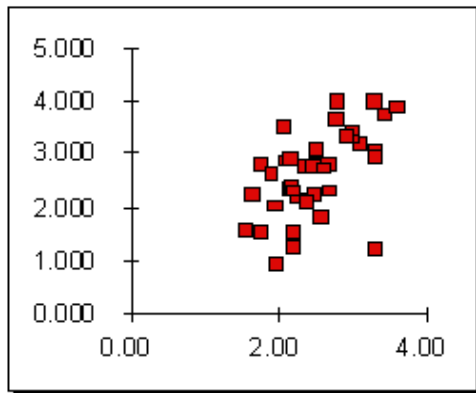


Bars are often used to compare differences between groups. This type of chart, like the pie chart, is also used with categorical data, and can illustrate up to about 15 categories very effectively. Bar charts make small differences between categories easily distinguishable.

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Component 5: Sharing and Interpreting Results

Scatter Plot



Scatter plot charts are used to display continuous data (such as GPA or SAT scores) from two variables. The scatter plot can easily show hundreds of data points. Sometimes a regression or "best fit" line is drawn to illustrate a pattern in the data, if one is present. In fact, the scatter plot is often used to discern or illustrate patterns in a large data set.

UNL Outcomes Assessment Guidebook Component 5: Sharing and Interpreting Results

Table Examples

Survey Response Tables: This table could be used to present responses to surveys. The first column allows those responses to be correlated with some other characteristics like GPA or class level. A department could also eliminate the first column and simply report the responses without reference to another characteristic.

	The program has helped me learn practical applications of XYZ concepts.						
GPA Ranges	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Percent Total	N
No GPA	19.6	62.7	8.5	9.2	-	100	153
<1.0	11.1	68.9	15.6	2.2	2.2	100	45
1.0 – 2.0	4.5	59.1	31.8	-	4.5	100	22
2.0 – 3.0	6.3	75.0	18.8	-	-	100	16
>3.0	25.0	50.0	25.0	-	-	100	4

	The program has increased my understanding of theories in the field.						
Student Class Level	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Percent Total	N
Freshman	20.0	30.0	40.0	10.0	-	100	10
Sophomores	26.1	39.1	21.7	4.3	8.7	100	23
Juniors	5.7	51.4	25.7	11.4	5.7	100	70
Seniors	5.3	49.3	25.3	20.0	-	100	75

UNL Outcomes Assessment Guidebook Component 5: Sharing and Interpreting Results

Assessment Score Tables: This table could be used to present assessment scores again correlating those results with other student characteristics. In this example, those characteristics are gender, college of major, and class level.

	Mean Score	Low Score	High Score	N
All Students	77.2	40	99	565
Gender				
Male	75.3	40	99	259
Female	78.9	45	99	306
College of Major				
Science	77.5	60	96	47
Planning	80.3	61	99	92
Business	79.0	40	99	106
Arts	74.2	40	89	51
Humanities	78.8	50	99	234
Education	76.1	40	94	35
Class Level				
Freshman	75.3	40	92	256
Sophomore	76.4	41	99	178
Junior	78.2	50	99	85
Senior	80.5	60	99	46

UNL Outcomes Assessment Guidebook Component 5: Sharing and Interpreting Results

Tabular summaries of data should also support longitudinal comparison of departmental graduates and show results for a several years of graduates on that particular measure.

Senior Capstone Project

	2001	2002	2003	2004	2005
N Graduating Seniors	30	25	32	31	27
N Assessed	29	25	30	31	26
<i>Demonstrates knowledge of subject matter:</i>					
Less than Proficient % (n)	10% (3)	d% (n)			
Proficient % (n)	b% (n)	e% (n)			
Superior % (n)	c% (n)	f% (n)			
<i>Demonstrates ability to locate and gather information:</i>					
Less than Proficient	g% (n)	j% (n)			
Proficient	h% (n)	k% (n)			
Superior	i% (n)	l% (n)			
<i>etc.</i>					

UNL Outcomes Assessment Guidebook Component 5: Sharing and Interpreting Results

Internship Evaluations

	1996	1997	1998	1999	2000
N Graduating Seniors	n	n			
N with Internship Evaluations	n	n			
<i>Interpersonal skills:</i>					
Average Rating	n	n			
Less than Adequate (1,2)	a% (n)	d% (n)			
Adequate (3)	b% (n)	e% (n)			
Superior (4,5)	c% (n)	f% (n)			
<i>Reliability of work produced:</i>					
Average Rating	n	n			
Less than Adequate (1,2)	g% (n)	j% (n)			
Adequate (3)	h% (n)	k% (n)			
Superior (4,5)	i% (n)	l% (n)			
<i>etc.</i>					

Component 6: Using Results and Interpretations and Future Plans

What decisions and/or actions has your program made or taken based on the results?

Guidelines for Using Results and Interpretations

Adapted from Source: Peggy Maki book

Uses of Results and Interpretations should:

- indicate how program will use what it has learned about the assessment process or the learning outcome of interest
- provide timetable for implementing changes and then following up to see if the change had the intended effect
- describe why the changes will lead to improvements in student learning or the assessment process
- describe the program's focus for the next assessment cycle

Using Assessment Results and Interpretations

*Adapted from: Ball State University, Assessment Workbook (1999) &
Southeast Missouri State University, Busy Chairperson Guide to Assessment (2001)*

In any given year, it may not be necessary or appropriate to implement a program improvement initiative based on assessment results. Still, the goal of the assessment process is to encourage discussions that make the curriculum and instruction in our programs better. As our assessment processes improve, the contribution of that process to making our programs better should also increase. If program improvements are based on assessment results they should be reported. These reports of efforts to improve programs are telling indicators of a vital, ongoing assessment program. If your assessment program is not giving you useful information for program improvement, then how the assessment process is conducted should be addressed.

A program might take one or more of the following actions based on its assessment results and interpretations for a specific outcome:

1) Improve assessment method used

This conclusion is likely if the method used to assess learning could be conducted more effectively.

2) Further assess the learning outcome with the same question of interest

This conclusion is likely if more information about learning outcome and question of interest is needed before valid interpretations can be made. This might have occurred because not enough evidence was collected or another type of evidence needs to be collected.

3) Further assess the learning outcome with a different question of interest

This conclusion is likely if the question of interest was answered satisfactorily or the question of interest needs to be restated so that other dimensions of the learning outcome can be explored further.

4) Repeat assessment of learning outcome and questions of interest after implementing a program change

This conclusion is likely if the program makes an improvement and then repeats the assessment method to determine if the change led to the intended effect.

5) Identify a new learning outcome and question of interest

This conclusion is likely if question of interest is answered satisfactorily and the program is interested in assessing other learning outcomes.

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Component 6: Using Results and Interpretations

An Action Plan

Adapted from: University of Massachusetts-Amherst, OAPA Handbook

Using an action plan can help continue your cycle of assessment by documenting what you have learned from the process and results. A plan like this can also be useful for determining your next or future cycles of assessment plans. Deciding in a concrete ways how you will use what you have learned will help the program document its effectiveness as well as to identify areas of assessment that might be more broadly useful.

Action Item	Action Type	Action to take	Steps to Implement	Timeline for implementing	Intended Effect	Timeline for follow-up
1	___ Improve assessment method ___ Implement program improvement ___ Further assess outcome	Encourage students who have demonstrated prior knowledge	1. From the data, identify content areas or greater knowledge 2. Develop extra credit tasks for students to complete to build on their knowledge 3. Establish a reward system to eliminate sense of extra work as "punitive"			
2						
3						

Primary and Secondary Uses of Assessment Results

*Sources: Ball State Univeristy, Assessment Workbook
William Peirce, Course Assessment Handbook
University of Central Florida, Program Assessment Handbook*

Primary uses:

- **Internal Program Reviews/Curriculum reviews**
Evidence of student learning can be used by programs to encourage discussions of perceived strengths and weaknesses and generate ideas of how to improve the program's effectiveness.
- **Communication with students**
What is learned from the assessment process and results can be shared with students to help them better understand the program's expectations of them and place more ownership for that learning on those students.
- **External Accreditation reports and reviews**
Results can be used to confirm the program helps students attain learning outcomes that are valued and documentation of the assessment process can demonstrate the program is engaged and committed to a process of systematically using evidence of learning to improve its program.
- **Requests to a curriculum committee**
Assessment data may accompany requests to a college curriculum committee for course changes or new courses.

Secondary uses:

- **Recruiting**
Findings about the satisfaction of current majors and clear intentions about what the program will prepare students to know and to do can be used to recruit new students to the department.
- **Alumni newsletter**
- **Career services**
Department alumni surveys can demonstrate to prospective employers why graduates from that department are more skilled, and better qualified than graduates from similar departments at other universities and colleges. This can be done on a departmental level or centrally.
- **Securing grants**
Many grants that involve address innovations in teaching and educational programs now require an assessment of that innovation to determine its effectiveness.

Examples of Program Improvements

So if the assessment process suggests some aspect of student learning might need to be improved what might those improvements be. The following are some examples but not an exhaustive listing of the unlimited possibilities for improving programs.

Using assessment results as evidence, programs might decide to

- Revise the program outcomes to include higher-order thinking and greater intellectual rigor
- Obtain more consistency in the content and skills taught in large multi-section courses
- Improve communication with adjunct faculty about program outcomes and course outcomes
- Address coherence of the curriculum by eliminating redundancies and identify gaps in learning or opportunities to practice that learning
- Provide students multiple and varied ways of learning critical concepts
- Explore active learning strategies and other teaching methods
- Explore other ways of assessing outcomes
- Explore technological enhancements (labs, equipment, CD tutorial, etc.), using the assessment evidence to support a request for increased funding
- Conduct a retreat or workshop for faculty and staff to learn how to integrate experiences that contribute to improved student learning
- Engage students in taking greater ownership for their learning by tracking their own progress towards learning outcomes
- Improve process of advising so focuses on student attainment of learning outcomes
- Develop out of class experiences for students to supplement what is learned in the classroom
- Map out how students will develop across the curriculum the knowledge and skills needed for demonstrating a learning outcome.

Appendices

- A. Outcomes Assessment Sample Plan*
- B. Rubric for reviewing quality*
- C. Guidebook Evaluation*

Appendix A: Sample Outcomes Assessment Plan

Sample Plan: ABC Program, Fall 2005 to Fall 2006
STUDENT LEARNING OUTCOMES
Student Learning Outcome One By their senior year, majors should be able to produce a research paper that demonstrates the following qualities: <ul style="list-style-type: none">• Understanding of substantive literature and relevant issues• Understanding of appropriate theory• Ability to use appropriate research sources and methods• Ability to make a coherent argument and support it with evidence• Ability to organize effectively• Ability to write clearly
The outcome addresses a skill that is important to a member of our discipline particularly because many of our graduates go on to graduate school and will have to continue to learn how to conduct and evaluate research in the discipline. The outcome is also tied to UNL's mission as a research institution and the type of education that allows us to provide students.
Opportunities to learn The following opportunities to learn result from students' coursework and the feedback given by faculty/professor in all classes in the major. In some cases peer review is also used to provide feedback to students on their writing. (1) Students will successfully complete two English composition courses; (2) Coursework in major will incorporate a variety of writing assignments and research assignments (Courses 225, 316, 316, 416, 452). (3) Elective coursework in departments taken by many of our students incorporates writing. (4) Students are required to complete a research project in the senior seminar prior to graduation.
Question of Interest Do research papers from the capstone course indicate that students have learned from the curriculum the skills needed to produce a high quality research paper?
Assessment Method(s) To assess this outcome we will sample at least 50% of the papers from our senior capstone courses each semester. The course enrolls approximately 15-20 seniors a semester. The instructor for the capstone course will require that students hand in two copies of their paper – one for grading and one for assessment. The Undergraduate Curriculum Committee chair will randomly select from this set of papers for the assessment. The instructor will grade the papers using a rubric with the criteria listed above and a member of the Undergraduate Curriculum Committee will evaluate the randomly selected sample of papers with the same rubric. This will allow papers being used for assessment to be double-scored and provide Undergraduate Curriculum Committee member a “clean” copy of the paper so the two scores are independent. The rubric rates each criterion on a 5-point scale of A through F. For each criterion and each scale point, a description of what the students should demonstrate is described. If the ratings of the instructor and the Undergraduate Curriculum Committee member differ, another member of the Undergraduate Curriculum Committee will be asked to rate the paper for a final rating. The ratings of the instructor and the Undergraduate Curriculum Committee member will be summarized by calculating amount of agreement between two raters for each criterion and the frequencies of ratings for each criterion. These results will be distributed to the Undergraduate Curriculum Committee and the Capstone Course Instructor for discussion and recommendations. A summary of the results and recommendations will then be discussed with the department as a whole to determine if any changes to courses in the curriculum are needed.
Summary of Assessment Evidence / Results The instructors and the committee members had similar evaluations, although the instructors tended to be somewhat more positive, evaluating more criteria as “excellent” and fewer as “poor.” But even the committee members evaluated most papers as “good” or “excellent.” They considered five of the eight papers to be “good” or “excellent” for almost all of the

UNL Outcomes Assessment Guidebook

Appendix A: Sample Outcomes Assessment Plan

criteria. At the other extreme, they found two papers to be “poor” on two criteria each.

Despite the generally positive evaluations overall, there were some negative patterns. In responses to the open-ended questions, committee members concluded that some papers lacked sufficient organization or focus. After an adequate beginning, these papers seemed to meander or drift away from the topic. These comments were manifested in the committee members’ evaluations of students’ ability to make a coherent argument and support it with evidence. This was the criterion with the lowest evaluations; three papers were deemed “poor” and four were deemed just “satisfactory” on this criterion. This stood out as the major shortcoming. Yet it would be premature to conclude on the basis of this handful of students in one year of assessment that this is a broad problem among our majors. And, it should be noted, only three of the eight students were evaluated by the committee members as “poor” on this criterion. And only one was evaluated by the instructors as “poor” on this criterion. Nonetheless, the evaluations on this criterion bear watching in the next couple years.

The Undergraduate Committee distributed the results of this assessment—the tabulations of the evaluations for each criterion by both the committee members and the instructors, and also the conclusions drawn by the committee and included in this report—to the department.

Use of Assessment Evidence / Results

The Undergraduate Committee did decide, on the basis of this assessment, to survey the departmental faculty about the length and type of papers assigned in courses students take prior to the capstone course, and also about the nature and extent of feedback provided on these papers. It is possible that the length and type of papers and the nature and extent of feedback contribute to students’ shortcomings in making a sustained and coherent argument by the time they reach the capstone course.

Faculty concluded student writing skills are good because they are required to write frequently throughout the curriculum but not enough practice on research papers before the senior seminar. The department will continue to discuss how to address this issue. We are considering a 200-300 level course or a guidebook with guidelines and effective examples.

Appendix B: Rubric for Reviewing Assessment Plan

Assessment Rubric

(Last Update: 9/21/05)

<i>Component 1</i>	<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
Outcome	1. Does the outcome clearly state what <u>students</u> will know and/or understand when they complete their program? 2. Does the outcome consistently use active verbs to clearly state what the student will be able to do with their knowledge or understanding? 3. Does the rationale for the outcome describe why it is important for graduates in the discipline? 4. Does the outcome connect with the mission and goals of the department, college and institution? 5. Does the outcome identify learning that can reasonably be observed and measured at the completion of the program?	Program has all characteristics listed.	Program is missing one of the listed characteristics.

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learning-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.
 Maki, P.L., (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.
 Palomba, C.A. & Banta, T.W. (1999). *Assessment Essentials: Planning, implementing and improving assessment in higher education*. San Francisco: Jossey-Bass.

Created by: Jessica Jonson, Office of Undergraduate Studies, for PEARL
 Reviewed and Refined by: PEARL Steering Committee (Susan Fritz, Jim Walter, Jeremy Penn) & PEARL Peer Reviewers

Assessment Rubric
 (Last Update: 9/21/05)

<i>Component 2</i>	<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
Question of Interest	1. Does the program clearly state a question that is related to the outcome and can be answered by the assessment process? 2. Does the question focus on an appropriate level of learning (e.g. lower level learning - recall or higher level learning - application, analysis)? 3. Does the plan identify how assessment of this question will contribute to program improvement? 4. Does the program plan address program improvements identified in previous assessment cycles, when applicable?	Program has all characteristics listed.	Program is missing one of the listed characteristics.

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.
 Maki, P.L. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.
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Assessment Rubric
 (Last Update: 9/21/05)

<i>Component 3</i>	<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
Opportunity to Learn	1. Does the program clearly identify the educational processes and experiences that contribute to and reinforce student attainment of the learning outcome? 2. Does program clearly indicate how courses and experiences build upon each other to help students achieve the outcome? 3. Do students have multiple and diverse opportunities to learn the outcome? to receive feedback on that learning? to reflect on their progress?	Program has all characteristics listed.	Program is missing one of the listed characteristics.

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learnor-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.
 Maki, P.L. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.
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Assessment Rubric
 (Last Update: 9/21/05)

<i>Component 4</i> Assessment method	<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
	<ol style="list-style-type: none"> 1. Does the method clearly state what evidence will be gathered (i.e. existing course assessments), who it will be gathered from, and how that evidence will be gathered? 2. Does the method clearly state how evidence will be documented and summarized across students for program reflection? 3. Does the method provide results that will be easy to understand and interpret? 4. Does the method provide an appropriate and thorough representation of student learning for the question being asked? 5. Does the method appropriately sample participants and/or participant products? 6. Does the method motivate participants to perform well and provide a thoughtful reflection? 	Program has all characteristics listed.	Program is missing one of the listed characteristics.

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.
 Maki, P.L. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.
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Assessment Rubric
 (Last Update: 2/8/06)

<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
<p>Component 5 Sharing and Interpretation of Results</p> <p>1. Do results thoroughly address the question of interest for the learning outcome assessed?</p> <p>2. Do results present evidence so that it can be understood by persons outside the content area?</p> <p>3. Did the method collect sufficient evidence to formulate recommendations?</p> <p>4. Do results discuss what was learned about the effectiveness of the assessment process?</p> <p>5. Do results indicate that relevant stakeholders (e.g. faculty, student, employer, alumni, advisory boards) were engaged in a discussion of results, when they were engaged, what results were shared, and how those discussions informed recommendations?</p> <p>6. Do interpretations identify areas of improvement suggested by the reported results?</p>	<p>Program has all characteristics listed.</p>	<p>Program is missing one of the listed characteristics.</p>

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.

Maki, P.L. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.

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Assessment Rubric

Last Update: 2/8/06

<i>Component 6</i>	<i>Characteristics to consider</i>	<i>Well-developed</i>	<i>Developing</i>
Using Results and Interpretations and Future Plans	<ol style="list-style-type: none"> 1. Does program indicate how they will use what they have learned (i.e. make program improvements, assessing learning further, improve assessment method, etc.)? 2. Does program indicate how the use will be implemented, who will implement the use, when the use will be implemented, and how the use will be followed up on to determine if it led to the intended effect? 3. Does planned use address the interpretations discussed? 4. Does program state why the planned use will lead to improvements in student learning or the assessment process? 5. Does program identify a potential focus for future assessment cycles? 	Program has all characteristics listed.	Program is missing one of the listed characteristics.

References Used:

Huba, M.E. & Freed, J.E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Needham Heights, MA: Allyn & Bacon.
 Maki, P.L. (2004). *Assessing for learning: Building a sustainable commitment across the institution*. Sterling, VA: Stylus Publishing.
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Evaluation of Outcomes Assessment Guidebook

Please help us improve this guidebook by completing this survey below. You can respond by copying and completing this form and mailing it to:

Jessica Jonson, 201 Seaton Hall, 0683

or by completing it on the web:

<http://CTLSilhouette.wsu.edu/surveys/ZS53162>

Indicate how much you agree with the following statements about the guidebook.		Please select only one response				
		Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
1.	The guidebook helped when documenting assessment results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	This guidebook helped me work through the process of developing an assessment plan for my program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	The guidebook helped me conduct an effective assessment process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Resources and worksheet in the guidebook were helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	The guidebook helped me better understand the assessment process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I would recommend the guidebook to other faculty at UNL.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I have more confidence in our assessment process because of the guidebook.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	The guidebook is an effective format for helping faculty develop a better assessment process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I found the guidebook easy to use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	The guidebook helped when identifying and writing a good learning outcome.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	The guidebook helped create a meaningful question of interest.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	The guidebook helped in the selection of an effective assessment method.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	The guidebook helped determine program improvements based on results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. List 3 ways the guidebook was helpful to you:

15. List 3 ways the guidebook could be improved:

16. What parts of the guidebook did you find most helpful...

17. What parts of the guidebook did you find least helpful...



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