#### I. QUICK START-UP 1-2-3S

- An Incomplete list of Assessment Tools
- o Connecting Programmatic Learning Objectives to Class Activities and Assessment
- o Rules for Learning Objectives
- Program Goals and Learning Objectives
- o Closing the Loop: Using Assessment Data to Improve the Program

#### II. 2014-2015 ASC CURRICULUM AND ASSESSMENT OPERATIONS MANUAL: ASSESSMENT o <u>http://asccas.osu.edu/</u> (pages 67-69)

- III. GRADING VS. ASSESSMENT
- IV. THE 1,2,3S OF GRADUATE EDUCATION ASSESSMENT
- V. PROGRAM ASSESSMENT REPORT EVALUATION RUBRIC

#### VI. FOR DEPARTMENT AND PROGRAMS

• <u>Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education</u> (Chapter 3)

#### VII. DEPARTMENTAL ASSESSMENT REPORTS

 <u>Assessment Clear and Simple: A Practical Guide for Institutions, Departments, and General Education</u> (Appendix F)

#### VIII. THE CRITERIA FOR ACCREDITATION AND CORE COMPONENTS

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# An Incomplete List of Assessment Tools

Assessment tools are methods for collecting data on student learning. They can be split into two types of tools or measures. Direct measures are assessment tools that measure student learning by having students create or perform a task directly based on their learning. Indirect measures infer whether learning has taken place by asking for perception of learning, typically from students, but also from those with whom they have worked.

**Direct measures:** direct evaluation of aggregate student achievement on specific learning objectives (e.g., "as a whole, students have learned X at this level")

### Embedded in regular course assignments:

- standardized exams (nationally normed, proficiency, licensing, etc.)
- embedded test questions (aligned to specific learning goals)
  - ♦ multiple choice
  - ♦ short answer
  - ♦ essay
- portfolios (graded with a rubric\*)
- writing assignments (graded with a rubric)
- lab reports (graded with a rubric)
- checklists of requisite skills
- minute papers/muddiest point (other graded or non-graded classroom assessment techniques)
- pre/post testing ask specific test questions at the beginning and end of the semester (or before and after you teach a specific topic)

#### Authentic assessment of real tasks:

- oral presentations (graded with a rubric)
- group projects (graded with a rubric)
- performances (musical, theater, etc.)
- posters
- capstone experience
- oral defense or exam
- videotapes of student skills performance

\*Rubrics allow instructors to share their criteria easily with colleagues and multiple graders to rate work on comparable scales.

**Indirect measures:** tools that allow you infer actual student achievement, very often from student self-report of their perception of their learning

- surveys (current students, alumni, etc.)
  - these may include SEI, self-evaluation of learning, recall of learning experience after some time
- exit interviews
- focus groups
- journaling (reflective or other types)
- interviews
- alumni database
- library usage
- Carmen usage data

# **Rubric Resources**

For those who may not be familiar with rubrics, here are a few websites with sample rubrics and directions for building them:

- http://www.flaguide.org/cat/rubrics/rubrics7.php
- http://serc.carleton.edu/NAGTWorkshops/assess/rubrics.html
- http://ctl.byu.edu/single-article/developing-functional-rubrics
- http://www.iuk.edu/academics/ctla/assessment/resources/resources\_rubrics/index.shtml

# Making the Grading Process Useful for Program Assessment

To use the grading process for assessment, one must:

- 1. Ensure that the classroom exam or assignment actually measures the learning goals
- 2. State explicitly in writing the criteria for evaluating student work in sufficient detail to identify students' strengths and weaknesses (rubrics are very useful for this)

Excerpted from: Walvoord, B. (2004). Assessment Clear and Simple. San Francisco: Jossey-Bass.

For further resources, contact the University Center for the Advancement of Teaching ucat@osu.edu | ucat.osu.edu



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What is the relationship between your program's learning objectives and the courses you teach?

- Individual courses should enable students to meet one or more of the program's learning objectives. Taken together, students' achievement in all required courses should meet all of the program's learning objectives.
- Individual courses should include activities (i.e. tests, papers, presentations) that assess how well students are meeting some programmatic learning objectives.



How can your program align your learning objectives with the activities in individual courses that assess student learning?

- Hold a meeting to start a department-wide conversation about program learning objectives and how to assess them. Find some agreement about what graduates of the program should be able to do.
- Identify or review your program's existing learning objectives.
- Analyze existing course syllabi to determine which learning objectives are taught and assessed in individual courses and how these learning objectives are assessed within each course.
- Visually represent this data by creating a curriculum map.

We can visualize—or map—how the curriculum for a major meets departmental learning outcomes. A curriculum map, like the sample below, illustrates how individual courses assess that students are meeting learning outcomes. Once the map is completed you can look at individual learning objectives (vertical columns) to see where they are taught and assessed. The map may highlight for you learning objectives that are taught more often than necessary, or not taught enough.

		Student Learning Objectives* <i>Hypothetical Writing Program</i> Students will be able to				
Course in the Program	Assessment Activity	Apply basic skills in expository writing.	Demonstrate critical thinking through written and oral expres- sion.	Retrieve and use written informa- tion analytically and effectively.		
English 100	Essay	x				
English 200	Research paper		X	X		
English 300	Research paper		X	X		
English 400	Annotated bibliography			X		
	Research paper		X	X		
English 500	Essay	X	X			
	Oral presentation		X			
	Project proposal			X		

\*The sample learning objectives come from The Ohio State University's Colleges of the Arts and Sciences General Education Program. The learning objectives are used only as samples, and do not correspond to the hypothetical courses in the curriculum map.

For further resources, visit:

https://carmenwiki.osu.edu/display/osuwacresources/Developing+Learning+Outcomes or contact the University Center for the Advancement of Teaching at ucat@osu.edu



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# Program Goals and Learning Objectives

# Why do we need both?

- Program goals provide us with the big picture, setting out a direction for the program and sometimes beyond.
- ♦ Learning objectives provide the achievable and assessable elements of those goals.

Both goals and learning objectives should assume successful completion of the program. No goal is likely to be completely addressed in any one course. No one course is likely to address all the program goals. Instead this should be a cumulative process of addressing goals throughout the coursework of a program.

# **Rules for Program Goals**

- 1. They should be be broad statements of what you want your students to know, be able to do, or care about by the end of the program.
- 2. Even if you don't include this phrase in your goal, begin each statement with, "Successful students will be able to..."
- 3. They should be student-centered, not teaching-centered: "students will understand...." or "students will appreciate..." rather than "this program will teach..." or "In this program, we plan to..."
- 4. They can use "fuzzy" general verbs like "understand," "appreciate," "value," "perceive," and "grasp," which are not appropriate for learning objectives.
- 5. They need not use observable and measurable verbs, which must be used for learning objectives.
- 6. Try to keep the number of program goals limited to 3-7. Having too many goals usually means that they have become too granular to be successfully assessed.

**Learning objectives** help us break down our goals into observable and measurable pieces. Cumulatively, a set of learning objectives that align with or support a goal describe successful realization of that goal.

# **Rules for Learning Objectives**

- 1. Just like program goals, they should be learning-centered, not teaching-centered: "students will be able to . . ." rather than "students will be exposed to . . ."
- 2. They should use specific active verbs that identify clear, measurable, observable objectives.
- 3. They should avoid verbs such as "understand," "appreciate," and "value," which are fine for course goals but are not observable or measurable. You will find some observable/ measurable verbs below.
- 4. Limit your learning objectives to one verb unless you know that students will always do both things in the same assignment or task. For example, if they will always analyze before drawing conclusions, then using both verbs is fine. Verbs that don't always happen together become more complicated to assess.

Knowledge	Comprehen- sion	Application	Analysis	Synthesis	Evaluation
Cite	Describe	Apply	Analyze	Arrange	Appraise
Define	Discuss	Assign	Appraise	Assemble	Assess
Give	Explain	Demonstrate	Calculate	Collect	Check
Label	Express	Dramatize	Categorize	Combine	Choose
List	Identify	Employ	Compare	Compose	Compare
Match	Locate	Illustrate	Contrast	Conclude	Critique
Name	Recognize	Interpret	Criticize	Construct	Decide On/To
Recall	Report	Operate	Debate	Create	Discriminate
Record	Restate	Practice	Diagram	Design	Estimate
Relate	Review	Schedule	Differentiate	Determine	Evaluate
Select	Tell	Shop	Distinguish	Diagnose	Grade
State	Translate	Sketch	Examine	Differentiate	Inspect
Tell		Use	Experiment	Dissect	Judge
Underline			Inspect	Examine	Measure
Write			Inventory	Formulate	Monitor
			Question	Manage	Rank/Rate
			Relate	Organize	Research
			Solve	Plan	Review
			Test	Prepare	Revise
				Propose	Score
				Refute	Select

# Sample Verbs for Learning Objectives



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# "Closing the Loop": Using Assessment Data to Improve the Program

The real purpose of program assessment is to assure that all of our students have the opportunity to learn what we really care about them learning. It is not enough simply to collect data for program assessment; these data must be used to "close the assessment loop," that is to continually improve the quality of the program and the experiences that enable significant learning.

Thus, if your assessment data show that in the aggregate, students are doing less well than you want them to on one objective, it is important to change the way that issue is being taught or to offer additional coursework in that area, or to rethink whether the objective is appropriately defined.

Also, if all of your measures are highly positive, it might be time to think about increasing the level of challenge or considering how you might push the program to the next level.



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# X. Assessment

The work of assessment is the shared responsibility of all involved in teaching and learning. As a strategy to improve learning, assessment is to ensure that students at Ohio State are succeeding and learning what is intended. Assessment should be viewed as dynamic and should continuously be implemented in a manner that makes assessment a routine practice.

The Arts and Sciences Curriculum Committee (ASCC) has formal oversight responsibility for assessment across all academic programs within the College of Arts and Sciences. The goals of the ASCC are to ensure that assessment is practiced with integrity throughout the College of Arts and Sciences and to facilitate improvement in the quality of the curricula and instruction based on information about student learning.

Through evaluation of outcomes in General Education and major programs of study, the ASC Curriculum and Assessment Services support assessment practices to improve student learning. Please consult the sections below. For additional information, resources and assistance with major and general education assessment initiatives, please visit <u>asccas.osu.edu/assessment</u>

### X. A. Major Program Assessment

#### X.A.1. Overview

All ASC major programs of study have articulated learning goals (and sometimes objectives) for students. These goals are available on the ASC Curriculum and Assessment Services website (<u>https://asccas.osu.edu/sites/asccas.osu.edu/files/ASC\_Major\_Goals.pdf</u>). Every major program is expected to submit assessment reports annually through the College to OAA. Departments are encouraged to work closely with their divisional associate or assistant deans.

#### X.A.2. Excerpts from the 2009 Reporting Guide for Assessment (OAA)

#### Assessment is a strategy to improve student learning

in which three key questions should be asked and addressed at the program level:

- 1. What do you want students to know, be able to do, and what perspectives should they acquire as a result of a particular program of study?
  - ✓ This is answered by having clearly articulated learning goals for each program of study. (Goals/objectives)
- 2. How do you know students achieved the intended/expected goals for learning?
  - ✓ This is answered by collecting/summarizing/evaluating evidence about student learning systematically using a planned means/method. (Methods/means/measures)
- 3. How do you use the collected evidence to enhance student learning/outcomes in an ongoing continuous improvement cycle?
  - ✓ This is answered by evaluating and communicating the collected evidence with relevant members of the program regularly, using the evidence to help guide decisions and actions to improve the program and student learning, and then continuing in the iterative assessment cycle. (Use of evidence)

Answering the above questions is accomplished more formally by developing and having a plan for assessment, and using and reporting the findings/evidence about student learning regularly and systematically.

An **assessment plan** is a blueprint for how a program will assess or evaluate over time, such as a five year interval, whether students are achieving the program's expected learning goals for them.

Assessment plans have the following key components: Goals and objectives Methods for assessing goals and objectives Means or measures for evaluating learning Criteria Use of information Implementation schedule

An **assessment report** is a summary of the assessment findings and activities that were actually conducted over a period of time, typically a one-year period.

Assessment reports have the following components in addition to those for the assessment plan: Evidence: Observations, findings, and results An indication of whether criteria (minimum and those for excellence) were met Use of evidence: Review and communication of findings Use of evidence: Changes made as a result of the findings Next steps or actions planned

At a minimum, reports and plans should include the above basic requirements. To exceed minimum requirements, plans and reports should incorporate best practices to make the assessment strategy most useful in improving student learning.

#### What goes in each component of the plan/report

(and is entered into the reporting template)?

#### **Goals for Student Learning**

The broad learning goals for the program should be stated separately. Each goal might also have associated objectives that are more specific and easier to measure, and which together help assess the broader goal. Some programs may use different terminology to describe learning goals such as educational objectives, competencies and skills, and expected outcomes.

#### **Methods: Means/Measures**

Methods are the procedures/means and measures which will be used to determine the quality of student learning for each goal and associated objective. The same method, such as a survey or review of papers in a capstone course, could be used to assess multiple goals. If so, the same method should be aligned with each goal or objective it is used to assess.

Multiple measures may be used to assess a single goal or objective. If so, all of the methods used to assess that goal or objective should be aligned with the means/measures for that goal or objective.

Sometimes all of the measures for several objectives together can provide a means for assessing a broader goal.

#### **Methods: Criteria**

The criteria are the standards which will be used to determine if students in the program achieved the expected learning goals and objectives. Criteria should be established for each goal and objective, and ideally would include both minimum and aspirational levels.

#### **Planned Use**

How information and evidence gathered about student learning will be: evaluated; shared regularly and with whom; and employed systematically to improve learning outcomes, should be planned. The 'use' plan is often the same for evidence collected about all goals and objectives, but could vary for selected goals and data.

#### **Implementation Schedule**

The implementation schedule indicates the expected time frame during which assessment of a goal or objective will be initiated and continued, as well as the frequency of assessment. Not every goal and objective will necessarily be assessed every year. However, it is expected that all goals and objectives will be evaluated over a three-five year interval, and time is given to reflect about student learning with respect to all goals in a program.

#### **Evidence: Observations/Findings/Results**

The evidence is a summary of the findings collected to evaluate the quality of learning for the relevant goal and/or associated objective. Evidence will be aggregated across individual students for programlevel assessment. Both qualitative and quantitative information can be used. For each goal and objective, it is necessary to indicate the extent to which the minimum criteria, and/or the criteria for excellence if established, are met.

#### **Use: Review and Communication of Findings**

This use of evidence about student learning refers to how the information was actually evaluated, reviewed, and shared routinely according to a plan. Assessment information can also be used in other review and planning activities beyond the formal plan, such as unit program review and strategic planning. Such information could be included in a report.

#### **Use: Changes Made**

This use of evidence about student learning refers to any actions taken or changes that were made as a result of the assessment review. If actions were taken or changes were made, the means by which the changes themselves will be assessed should be considered. Additional use of assessment information could also be indicated in a report.

#### **Next Steps**

Next steps represent a short-term plan to continue assessment activities to improve the program and student learning, and to continue the iterative assessment cycle. Steps might include specific action plans that result from collected evidence about student learning, continued implementation or refinement of the larger plan, or other relevant expected activities.

#### X. B. General Education Assessment

#### X.B.1. Overview

The ASC Curriculum and Assessment Services coordinate the assessment of individual GE courses and GE categories on a regular basis. The GE Assessment Report Requirements can be consulted in Appendix

#### **Grading versus Assessment**

Why are grades not typically sufficient for assessing student learning? What is usually meant by this question is why are <u>course</u> grades not typically sufficient for assessing <u>expected learning outcomes</u> (ELOs) a program has established for its students. Surprising to many, course grades are actually an indirect (rather than direct) measure of student learning. At first this might seem confusing, but consider that a course consists of many topics and expectations, and an overall grade may not accurately reflect a student's achievement in all these content area or for all the expectations. For example, a student might do exceedingly well in most areas, poor in a few, and, on balance, receive a satisfactory overall grade. Here are two examples illustrating this aspect of course grading, with a focus on assessment of an ethics learning goal/ELO.

Program XX has a learning outcome that 'students will know the ethical expectations of the discipline.' The Program has identified seven courses in which ethics is covered, and would like to use course grades as a direct assessment of the outcome, assuming that if students achieve an average course grade of 'C' or better in these courses, the outcome has been achieved. In the example below, however, an analysis of student performance on content related to ethics within each course indicates the ethics ELO was not achieved even though students on average did well in all of the courses. This example illustrates how course grades would not be a valid indicator of student achievement of the program's ethics ELO.

Course /Topic	Content A Average Grade	Content B Average Grade	Content C Average Grade	Content Ethics Average Grade	Average Grade/Course	
Course 1	A	В	A	D	В	
Course 2	В	A	A	D	В	1
Course 3	A San Hannes	Brand	A State States	D # Star Star Back	Breese Carcosse	24
Course 4	A	A	A	D	B Manakas Maria	10
Course 5	Bristeworkeint	A	A	D	Bethe	
Course 6	A	B	A	D	B	
Course 7	Α	A	A	D	В	1

Using another example, Program YY has identified a capstone course in which several outcomes can be met. The outcomes are related to: (1) Methods, (2) Writing, (3) Advanced Integrated Content, and (4) Ethics. The Program plans to use course grades as a direct assessment, assuming that if students' average grade in the course is 'C' or better, all outcomes have been met. In the example below, however, students do not achieve all four outcomes even though the overall class grade is 'C' or better. There are also notable individual student differences in achieving specific outcomes (1 vs. 2). The example further illustrates that overall grades may include factors other than student performance, such as credit for attendance, and that the grading scheme may weigh achievement on certain assignments associated with specific outcomes more heavily than other, which also affects the overall grade. In this example, then, course grades would not be a valid indicator of student achievement of the different ELOS.

Student/Outcome	Outcome 1 Weighted higher in overall grade than all other outcomes	Outcome 2 Weighted less in <i>overall</i> grade than all other outcomes	Outcome 3	Outcome 4 Ethics	Average Grade/Student (also includes extra credit for attendance)
Student 1	A	D	A	D	В
Student 2	A	D	A	D	В
Student 3	A	D	A	D	В
Student 4	D	A	A	D	С
Student 5	D	A	A	D	С
Student 6	D	A	A	D	С
Average Grade/Outcome	С	C	A	D	Overall course average: >C

#### Here's one more example.

LEARNING GOAL/ EXPECTED LEARNING OUTCOME: A student should possess knowledge about and and understanding of every major physiological system.

CURRICULUM IN WHICH THIS CAN BE ACHIEVED: Physiology 1100 curriculum consists of the nervous, circulatory, and pulmonary systems.

PERFORMANCE: A student does very well on the nervous and circulatory systems, but does poorly on pulmonary portion of the course. The student receives a B overall.

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ASSESSMENT: Using only the overall grade, one would not know that the student did not meet the stated learning goal.

These examples illustrate that the course grade typically contains too much and too diffuse information to be used to assess specific ELOs directly. Assessment of students' work or assignments *within the course* which is associated with and reflective of learning about a particular outcome, however, can serve as a direct assessment of that ELO. This is called *embedded testing*. Returning to the ethics example again, grades on only the ethics-related exam questions, or grades focused on application of ethics in a research project, could be used as direct measures of a students' achievement of the ethics ELO since the assessment tools address that goal/outcome specifically.

Note, however, if various faculty use *different* standards for the embedded testing, the evaluations may not be reliable indicators of *program-level* outcomes. A better practice would be to have faculty use a standard and agreed upon scoring guide for the ELO being assessed, or select representative samples of student work within or across courses, and have faculty representatives evaluate the work independently using a *standard* scoring guide. The Program would then have evidence about students' learning of the Program's ELOs rather than how students perform in a particular course.

Additional discussions may be found at:

- Carnegie Mellon: Grading vs. Assessment of Learning Outcomes: What's the Difference?
  <u>https://www.cmu.edu/teaching/assessment/howto/basics/grading-assessment.html</u>
- University of Florida: <u>http://assessment.aa.ufl.edu/grades</u>
- Excerpts from several sources: <u>http://www.assessment.uconn.edu/docs/resources/Why\_Aren%27t\_Grades\_Enough.pdf</u>

# The 1,2,3s of Graduate Education Assessment



Assessment at the graduate level will be an important aspect of Ohio State's accreditation by the Higher Learning Commission. Assessment is part of undergraduate education at Ohio State, and now it needs to be integrated into graduate education. The goal of assessment is to improve the quality of education. By defining learning goals and gathering data about their accomplishment, assessment allows informed decisions about how to improve graduate student learning.

#### There are three main steps to assessment

1. Articulate Goals Describe what students should learn in your discipline. Learning goals often look like: "When a student completes our program, s/he will be able to ....' Evidence defines how well students are 2. Gather Evidence achieving the goals. Evidence may include direct measures, such as exams, and indirect measures, such as surveys. Evidence includes both qualitative and quantitative information. Use Evidence Use the evidence for improvement. 3. Complete the assessment loop by making

your goals.

2 What's our plan?

changes to your program and/or redefining



The Graduate School will lead the way to help programs develop and implement assessment plans over the next few years. The Graduate School will help collect direct and indirect evidence, provide web-based resources for the management and analysis of evidence, and provide guidance and workshops.

- Overview Our plan is to roll out assessment to all the graduate programs over the next few years in 1. steps. We will involve the graduate programs in the development and timing of the next steps.
- Each graduate program's assessment plan should have clearly stated learning goals, a method **Develop** an 2. **Assessment Plan** for collecting evidence for each of these goals, and a process for using the information for ongoing improvement of the program. At regular intervals, programs will be able to use their data to self-determine their success in reaching their goals.
- 3. Support Graduate In the long term, the introduction of assessment to graduate programs will be part of the **Program Data and** Graduate School's larger effort to support the graduate programs by providing access to tools **Process Needs** that help streamline many graduate program data needs and administrative processes, including fellowships, program review, student data, and career placement.

# **3** First Steps

Form an

2.

- Assessment will be implemented in steps. This approach will allow infrastructure to be developed as well as troubleshooting.
- 1. Develop Learning All graduate programs will need to define their learning goals. About half of the programs have submitted learning goals as part of the semester conversion process. We seek to collect Goals learning goals from the remaining programs by December 31, 2012. Information on learning goals will follow separately.
  - The Graduate School will form an assessment committee to provide guidance and suggestions for implementing the roll-out of assessment over the upcoming years. We are seeking Assessment Committee nominations/volunteers from the graduate faculty for this committee. Please send nominations to Dena Myers (MYERS.663@OSU.EDU).
- 3. Develop Pilot We will begin by identifying 6 to 12 pilot programs. We seek programs that have assessment plans in place as well as those programs that don't. Please contact Scott Herness **Programs for** Assessment (HERNESS.1@OSU.EDU) if you'd like to participate as a pilot program or if you have any other questions.



**Program Assessment Report Evaluation Rubric** 

Program: Date:

	Exceeds	Meets	Needs Attention
Summary	Summary is clear and understandable. Points of pride and of concern are listed.	Summary is mostly clear and understandable. Points of pride or of concern may be mentioned.	Summary is vague or not connected to rest of plan.
Learning Goals	Student learning goals are clearly " measurable, using active, observable verbs.	Most student learning goals are possibly measurable, though verb choice may make assessment difficult.	Student learning goals are not measurable or are missing.
Means/methods of assessment: Alignment	Assessment methods perfectly align with the program learning goals. Each goal is aligned with at least one method.	Assessment methods align with some program learning goals, or align imperfectly.	No assessment methods are provided/described or they do not all align clearly with program learning goals.
Mixed methods	A mix of direct and indirect methods measure all learning goals.	A mix of direct and indirect methods measure most learning goals.	Mostly indirect methods that fail to measure several significant learning goals.
Definition of success	Shared assessments of student learning (if used) include clear and meaningful descriptors for each level of student success (e.g. exceeds, meets, does not meet).	Shared assessments of student learning include for each level of student success (e.g. exceeds, meets, does not meet).	Shared assessments of student learning do not include descriptors for each level.
Criteria for success	Each program goal has clearly stated and appropriate criteria that define whether the program has achieved excellence in that goal.	Most program goals have clearly stated and appropriate criteria that define whether the program has minimal success in that goal.	Most or all of the criteria for success are missing.
Planned use of data	Appropriate members of the department are identified to engage with the results of each element of the data with the intention of using it for program enhancement.	Appropriate members of the department are identified to engage with the results of some but not all elements of the data, or the plan is unclear.	No plan for using data for program enhancement is offered or the plan is impracticable.
Implementation schedule	Multiple sources of data have been collected and interpreted for each goal according to schedule as planned. Data are collected and interpreted to assess success at appropriate milestones across the duration of the program.	Data has been collected and interpreted for all of the goals within the last few years, according to the stated schedule. Data are collected to assess success at some but not all milestones across the duration of the program.	Data has been collected for some goals but not all or collected but not interpreted or used. Data collection is not distributed across specific milestones or occasions.

Programs that collect more data for accreditation purposes need not use all data for this assessment process

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**Program Assessment Report Evaluation Rubric** 

Program: Date:

	Exceeds	Meets	Needs Attention
Evidence	A summary of evidence is provided for each goal that the MINIMUM criteria for success were met.	A summary of evidence is provided for some goals that the MINIMUM criteria for success were met.	A summary of evidence is not provided for each goal, or the MINIMUM criteria for success for most goals were not met.
	A summary of evidence is provided for each goal that the criteria for EXCELLENCE were met.	A summary of evidence is provided for some goals that the criteria for EXCELLENCE were met.	A summary of evidence is not provided for each goal, or the criteria for EXCELLENCE for most goals were not met.
Review of Findings	Interpretation of data is extensive and uses multiple data sources when appropriate.	Interpretation of data is appropriate for type of data and questions posed.	Interpretation of data is not appropriate for the type of data collected, or does not help answer the questions posed.
	Report clearly communicates which criteria were met and links outcomes to aligned learning opportunities.	Report clearly communicates which criteria were met.	Report does not mention whether criteria have been met.
	Data collected through assessment procedures are regularly reviewed by appropriate members of the department and used for program improvement and	Data collected through assessment procedures are occasionally reviewed by members of the department but not often used for program improvement or to enhance student learning.	No description is provided of how data are regularly used for program improvement or to enhance student learning.
Changes Made	Changes to the program arise directly from assessment data.	Most changes are related to assessment data.	No changes have been made even though data suggests the need, or changes have been made without data to support them.
Assessment of changes made	Future assessment of all changes made is planned for, and assessment methods identified.	Future assessment of some changes made is planned for, and/or some assessment methods identified.	No plan for assessing changes is evident.
Next steps	Plans for improving student learning success for many program goals, based on assessment. are described.	Plans for improving student learning success for some program goals, based on assessment, are described.	No plans for improving student learning are described.

Programs that collect more data for accreditation purposes need not use all data for this assessment process

2

# Assessment Clear and Simple A Practical Guide for Institutions, Departments, and General Education



# CHAPTER 3

# For Departments and Programs

The following people will find this chapter most relevant:

- Department chairs
- Department assessment or accreditation committees
- Department faculty
- Planners and administrators responsible for supporting departmental assessment

This chapter assumes you have read Chapter One.

This chapter is addressed to "departments" as a generic term, including "divisions," "colleges," or "schools." Some such units will have common goals and assessment measures for all subunits and may also need to generate separate goals and measures for individual subunits or tracks.

### The Purposes of This Chapter \_

Your department, division, college, or school is already doing assessment, as Chapter One emphasizes. You are probably turning to this chapter because you have been asked to improve your assessment and report it for one or several of these purposes:

- Regional accreditation for the institution as a whole
- Professional accreditation in disciplines such as engineering, business, health sciences, or architecture

#### Assessment Clear and Simple

- A board or legislative mandate to the institution for assessment
- Assessment as part of an institutional initiative such as retention, distance learning, or technology upgrade
- Assessment as part of a departmental initiative such as curriculum review or hiring

This chapter will help you make assessment:

- Time efficient
- Useful for the department's own goals
- Consonant with external accreditation requirements

#### Analyze Task, Audiences, and Purposes

Understanding precisely what you are being asked to do and what you are not being asked to do as well as identifying your audiences and purposes will help you gather only the data that you need, in the form that will be most useful.

#### **Understanding Your Task**

Be very clear about which of the following tasks you are undertaking:

- Reviewing the department's current assessment practices and recommending changes in how the department conducts assessment
- Reviewing the assessment data about student learning and recommending changes in curriculum, pedagogy, and other aspects to improve learning

For the first task, you will report, for example, that a senior survey is administered annually by Institutional Research, with an 80–90 percent return, and that relevant findings from these data are distributed regularly to Student Affairs, the provost, and the strategic planning committee, but departments find these data hard to use. You recommend that reports be disaggregated by students' major and results made available to each department for its own majors. For the second task, you will report that 41 percent of your undergraduate majors respond on the senior questionnaire that your university greatly or moderately enhanced their ability to function effectively as a member of a team and that this is lower than a group of your peer institutions. You institute a workshop in your department, school, or college to help faculty use teams more effectively in their classes and a review of the curriculum to consider incorporating more team projects.

#### Analyzing Audiences and Purposes

A single audience may be the immediate driver for your attention to assessment, but you may be able to serve other audiences and purposes at the same time. For example, data on the percentage of students involved with faculty in research may be useful as a recruitment tool, as well as part of your assessment report to accreditors. The most important audience is the department itself; you must conduct assessment so that it serves the department and its students. The matrix in Appendix D may be helpful in identifying your audiences and their needs.

Exactly what kind of report are you being asked to submit, and to whom? If your institution is using interviews or questionnaires with department chairs as part of its information collection for regional or legislature- or board-mandated assessment, what questions will the institution ask of you? If you are asked to submit a written report, what is the format and content, and how will the collectors use it? If you are preparing for a professional accreditation visit in your discipline, what will the self-study require, and what will the visiting team look for?

#### Envision the Departmental Assessment Report or Plan \_

A departmental assessment report or plan may be written for a variety of audiences using formats that make sense to those audiences. You can be most efficient if you envision, early in the process, what your final report will need. Examples of department reports and plans are in Appendix F.

### Plan Carefully for Departmental Collaboration in Assessment \_\_\_\_

Assessment can be divisive and unnecessarily time consuming or it can be productive, inspiring, and thought-provoking for the department, helping the department to be more clear about its aims and more effective and cost efficient in achieving them. The challenge is to manage your departmental culture so as to achieve these desired outcomes. This chapter offers sequential steps to implement successful assessment. However, you will need to follow these steps within the context of your own departmental culture. Before you begin any new moves in assessment, gather a group of the wisest heads in your department to discuss Chapters One and Three and then to brainstorm—not yet to make recommendations about your assessment structures but to plan how best to manage the assessment discussions you are about to have. Here is a guide for this discussion:

#### Assessment Clear and Simple

- What exactly is the department being asked to do and *not* asked to do about assessment, and why? How can we communicate these requirements accurately to everyone?
- Is there a difficult departmental issue we have managed well in the past that can teach us how to manage these discussions well? Is there a difficult issue we have managed badly? How can we avoid similar pitfalls?
- What fears do our department members have about assessment? Are there ways we can address those fears?
- What does each department member stand to gain from participating in assessment or at least not actively blocking it? How can we enhance those rewards?

If beginning a discussion about assessment with the entire department seems too difficult, sometimes it is possible to begin assessment within a subset of the department. In my experience, units such as the composition and rhetoric program in English, language instruction in departments of language and literature, or master's degrees that serve the needs of practicing professionals (such as Master of Divinity in theology or Executive MBA in business) may be most open to assessment. Look for a subsection of the department that already is familiar with assessment or that sees the benefit of it. Let them begin analyzing assessment practices in their track or program.

If a department is marked by serious mistrust, conflict, or tension, these issues may need to be addressed first before you can make much progress on assessment.

# Establish Responsibility for Assessment \_

To conduct the assessment review, the chair may appoint an assistant chair, a faculty point person, or a committee, but the chair should remain involved and publicly supportive. Follow your own departmental culture and decision-making practices in determining what will work best. If you work by committee, include representative adjunct and non-tenure-line faculty, as well as students if that is your department's practice, but be sure that the committee membership demonstrates the investment and commitment of full-time, tenure-line faculty.

# Articulate Departmental Learning Goals

As Chapter One explains, the assessment process is built on articulation of the departments' learning goals. Appendices F and J contain examples of departmental learning goals. Goals should be stated in this format: "When students complete our program (e.g., major, doctorate, program, or core course), they should be able to . . ."

- Statements such as "The Department will do XYZ" or "The students will be exposed to XYZ" are fine goals in their place, but they are not learning goals. They are goals for action the department hopes will lead to learning.
- You may have somewhat different goals for general education students, nonmajors in service courses, graduate programs, undergraduate majors, or different tracks within the major.

If your disciplinary accrediting agency dictates the learning goals, as, for example, in engineering and architecture, you can skip this step unless you want to add, for your own benefit, goals for assessment that the accreditors do not require. For example, some institutions want to aim higher than the basic accreditation goals, including more complex kinds of thinking and problem solving. Faith-based institutions may want to expand the discipline's goals with learning goals that fit their own missions.

The first task of your assessment review is to determine whether and in what ways you have already stated departmentlevel goals for student learning and to move the department toward effective goal statements.

- Identify your distinct student populations with somewhat different learning goals.
- Collect already existing goal statements, such as:
  - Goals completed for past accreditations or other purposes
  - Goals generated by curriculum review committees
  - Goals emerging from departmental retreats
  - Goals accompanying budgetary requests
  - Goals established by your disciplinary society or in the literature of your discipline
  - Goals established with the help of your industry advisory group
- Work from the mission and goal statements of the university and the school or college. Accrediting agencies often want you to make explicit the link between your departmental goals and the goals of your college or school and university.
- For departmental purposes, goals will need to be made sufficiently specific so that they imply student performances

and criteria for evaluating those performances. For example, the university-wide goal might be related to critical thinking. The history department might interpret that goal as "Students will be able to write historical arguments in which they define a debatable issue in the field, take a position, defend the position with appropriate historical evidence, and address counterarguments." Such a statement implies that students in a senior history course could be asked to write a historical argument and that faculty could evaluate it by the criteria implied in the goal statement.

- If you have no usable statements of learning goals, try these strategies for generating them:
  - Ask faculty to contribute their course goals (taken from their own knowledge of what they are aiming for and/or from statements on their syllabi). Then let one or two people from the department work from those goals to draft a coherent statement and bring it back to the department for revision. You can do this exercise even if a few faculty do not contribute their goals; simply ask them to react to the draft statement. If they don't do that either, just move forward with those in the department who are willing to participate.
  - Investigate whether your scholarly or professional society has published goals or standards for undergraduate student majors. If so, use these as a draft for discussion and emendation in the department.
  - In a department meeting, brainstorm goals, writing down on newsprint what each person contributes, without judgment or selection. Then ask a departmental committee to work from these brainstormed statements to draft student learning goals for departmental discussion and emendation.
- If the department cannot agree on a comprehensive list of all its learning goals, do not spend a lot of time trying to get a comprehensive list. Instead, take one or two goals on which the department *does* agree and begin to find out how well students are achieving those goals and how the curriculum and pedagogy of the department serves those goals. For example, one biology department, in their initial conversations, could agree on only one thing: that biology majors ought to be able to use the microscope. So they instituted a

microscope exam for all exiting seniors, in which the senior had to come into the lab, set up the microscope, and identify an organism on a slide. About one-third of their graduating seniors failed this test. That gave the department plenty to work on; they could focus on improving this one aspect without getting bogged down in an attempt to reach consensus on a full set of goals.

The important point is to get a set of goals you can use as the basis for assessment, without spending more time on them than necessary to for the department's own needs.

### Conduct an Assessment Audit

The next step is to identify the assessment of the learning goals that is already occurring in your department. Wherever you are gathering information about student learning, even if it is informal, even if it is not written down, even if it is not being used very well, even if no one has called it assessment, include it now, because it is a potential site or building block for assessment. Your goal at the end of this audit is to construct an analysis similar to those in Appendix F.

#### Identifying Classroom Assessment

Begin your audit by identifying where in your classrooms the departmental goals are being taught and assessed. Appendix K presents matrices that each faculty member can complete for the courses that he or she teaches, showing how he or she teaches and assesses department-level goals and, in the final example, identifying strengths and weaknesses the faculty member perceives in student work. This information on classroom assessment eventually will be included in the complete report on all assessment in the department (Appendix F).

### Identifying Assessment Beyond the Individual Classroom

For the second part of your audit, make a list of departmental assessment measures beyond the individual classroom, both direct and indirect (see Chapter One for definitions of these terms). Identify how each measure is used for departmental decision making. You may be able to link the assessment measures immediately to your goals on the matrix (as in the first three examples in Appendix F), or you may at this stage simply have to list the assessment measures and decide later how they relate to the goals. Following is a list of some of the assessment measures you may have in place.

#### **Direct Measures**

- Review of senior projects by external evaluators. Are criteria for their judgments written down? Could they be? Do the evaluators merely give awards or feedback to the individual students, or do they also give feedback to the department as a whole? If they don't now give feedback to the department, could they?
- A national or state exam that your students must take (for example, national or state boards or certification exams). From what percentage of your student test takers do you get information? For example, dental hygiene departments generally get information on all their students who attempt the board exams, but law schools may not know how many of their graduates attempted the bar and who passed. Does your information include strengths and weaknesses or only pass rates? How is this information used in the department?
- Where in your curriculum do multiple faculty members examine student work, as, for example, senior projects in the major, or Ph.D. qualifying exams or dissertations. Are there written criteria that faculty use? Would such criteria help make evaluation more accurate or systematic? Does faculty knowledge of the weaknesses and strengths of student work in the aggregate get fed back systematically to the department? Could it be?
- Some departments have an entering, noncredit exam that tests students' knowledge as they begin a particular course within a sequence of courses. The exam helps the professor understand what students have and what they need coming into the course. When shared with the department and/or with instructors of prerequisite courses, the exam serves as a benchmark of students' knowledge at a certain point in the curriculum. Would this work for your department? Could the results be shared with the department?

#### **Indirect Measures**

• *Retention and Graduation Statistics:* Does the department keep track of retention data, such as how many of the students who take its introductory course go on to declare and/or complete the program or major? Would such information be useful? Could it be collected with available resources?

- *Placement:* Does the department collect information from exiting students about their plans or placement in jobs or further education? If this gathering is informal, would it be helpful to make it more systematic? If you are not gathering this information, is the alumni office or Institutional Research gathering it? Can they aggregate or break out and report their information in ways that would be useful to you?
- *Career Development:* Does the department gather information about the career progress of its alumni over time? If faculty gather this information informally by keeping in touch with students, is there a way to make the information more systematic and to feed it back into decision making? Does the career placement office, alumni office, or Institutional Research gather the information, and could they aggregate it or break it out in ways that would be useful?
- Student Evaluations: Does the department or any of its courses gather student evaluations? Could these be aggregated for department-wide analysis? If the student evaluations ask only about the quality of instruction, would it be useful to add questions that ask students how well they thought they achieved the learning goals of the course? Do you, or could you, convene student focus groups, a student advisory group to the chair, or a student club or committee that would systematically give feedback?
- Alumni Surveys: Do you conduct formal or informal surveys of alumni about their perceptions of their own learning or their suggestions for improvement in the department? If these are informal, would it be useful to make them more systematic? Is Institutional Research or the alumni office collecting this information?
- *Student Activities:* Do you or your Institutional Research office collect information about students' activities that might indicate their learning—for example, their participation in research or internships, their volunteer service, and the like? If this information is collected on an institution-wide basis, could it be broken out for your own majors?
- *Teaching Strategies:* Do you have information about the use of teaching strategies that research has suggested can enhance learning—for example, the amount of writing assigned and the ways faculty respond to writing in your department or the amount of involvement by students in professors' research?

#### Assessment Clear and Simple

• *Program Review*: Does the department undergo periodic review by the provost, external bodies, or others? What kinds of data are collected—does the review team interview students? Examine student work?

#### Identifying How Data Are Used

For each of the types of data you list, describe how they are used, as in the departmental assessment plans in Appendix F. Here are some possibilities:

- The chair and/or departmental committees or directors of undergraduate studies, graduate studies, curricula, or other aspects review data and make recommendations to the department. Are they reviewing all relevant data? Is the review sufficiently systematic? Do they have all the information they need for good decision making? Does the department have the appropriate committees in place for addressing student learning? Are centralized data from Institutional Research, career placement, and similar offices appropriately used in the department?
- Periodically, as the department undergoes academic review or professional accreditation, a team of external reviewers analyzes all relevant data and makes recommendations to the department. Do they have the data they need for good recommendations? Is the review process fruitful for the department?
- An industry or alumni advisory body reviews relevant data and makes recommendations to the department. Do they review the right data for their level of understanding about the department? Does the review process effectively tap their particular expertise?

#### Putting It All Together

Now you have information about the assessment being conducted in individual classrooms (from Part One of the audit) and about other assessment measures (from Part Two). You are ready to put it all together into a coherent picture. The examples in Appendix F show completed departmental reports, including explicit links between learning goals and assessment measures.

You may have assessment measures that do not map to any stated goal. If so, that becomes part of your report to the department and your consideration of the department's total assessment picture.

#### Strengthen the Department's Assessment Processes

Once you have completed your matrix showing the assessment being conducted, you are ready to recommend how the department can improve its assessment procedures. Appendix F contains examples of recommendations that are part of departmental assessment reports. Here are some factors to consider:

#### Are Learning Goals Well Stated?

At the beginning of the process, you constructed departmental learning goals. Now that you have collected information about the assessment measures in place, do the goals still seem appropriate? Do you have measures for goals you did not state or measures that imply a different phrasing of goals? If so, do you want to revise your learning goals?

#### Are All Learning Goals Being Taught in a Sensible Sequence?

From the matrix in Part One of the audit showing classroom assessment (Appendix K), are each of your goals being taught? Are they being taught in a sensible sequence? Are skills and knowledge being developed progressively throughout the curriculum? If not, this is the first item you should address. It's hard for learning goals to be achieved if they are not being taught.

#### What About Goal Disparity by Course Section?

You may find that some sections of a course have different learning goals than other sections (Appendix K). The department may want to work together to achieve greater unanimity. However, assessment need not impose a cookie-cutter uniformity. There may be very good reasons in your department to allow faculty discretion about goals and assessment measures within different sections of the same course. If so, you need to ensure that all students, no matter what their sections, are experiencing a sensible sequence of learning goals within the curriculum. Track their paths: If a student takes Prof. Andring's section of 201, what will be the student's sequence of learning goals? If a student takes Prof. Chu's section of 201, what will be the student's sequence of learning goals?

It is possible to bring sections of a course closer together in terms of *learning goals* and still have a wide variety of *course content and teaching methods*, according to each teacher's choice. Thus a department might say, for example, that in the first course of the British literature survey, faculty will aim for goals *X*, *Y*, and *Z*. But faculty can individually decide what literary works to teach, how many to teach, what kinds of writing assignments, and how to mix lecture, discussion, and small-group work.

#### Can You Build on the Grading Process?

As Chapter One explains, one of the most effective yet least timeconsuming modes of assessment is to use a classroom assignment that is being conducted for grading purposes and feed back the information to the department. Where in your classroom assessment grid is an assignment whose results yield evidence of how well students have reached one or more of the departmental goals and would be useful to the department in decisions about curriculum, pedagogy, staffing, and the like? Here are some examples:

- In a community college statistics course, taken by all students in the mathematics and physics program, the faculty member assigned a statistical project in which students gathered data, made statistical computations, and wrote up their reports. For grading, he used multiple criteria, but three of them were especially important for departmental learning goals. The department asked him to report annually to them about students' strengths and weaknesses in these three areas.
- In a political science department at a four-year institution, all seniors completed a thesis, under the guidance of an individual faculty member. The department instituted an annual meeting at which the faculty thesis advisors met with the department to report, in a systematic way, the strengths and weaknesses they saw in student work and to recommend to the department what needed to be done. For example, they reported that students entering the thesis process often did not know how to formulate an appropriate question for inquiry in the field. The department revised courses earlier in the curriculum to place more emphasis on building that skill.
- In a major national research university, all doctoral theses were read by at least three faculty members in the department. This store of knowledge about student work was not being systematically fed back into departmental deliberations. A department that wished to do so asked its faculty to keep written records of the strengths and weaknesses of student dissertations, related to their learning goals for Ph.D.

students. Annually, all dissertation advisors reported to the department the strengths and weaknesses they had observed, and the department discussed how its curriculum, advising, or other actions could help students more effectively.

#### Can You Use Student Evaluations?

If your department has a common student course evaluation, you may be able to aggregate the returns to get a department-wide picture. For example, at one national research university, a standard student evaluation form is used for all classes. Institutional Research sends individual reports to faculty for their own improvement, and it also aggregates data by department. Thus the department chair in history, for example, can see how history students' perceptions of the quality of their own learning and the quality of instruction compare to the student perceptions in other departments in Arts and Letters and other departments in the institution. Departments that score low in relation to their peers are urged to gather further information and address the problems. Student evaluations are most useful if they ask questions both about students' perceptions of how well they met the learning goals of the course and also about the quality of instruction. A fine national questionnaire that does both is IDEA (www.idea.ksu.edu), which can be adopted by a single class, subset of classes, or a department.

#### Are You Using Institutional Data Effectively?

It is common for institutions to be gathering data that are potentially useful to departments but not aggregated, formatted, or distributed to departments in ways that are maximally useful to them. Offices to check include Institutional Research, career placement, alumni, Student Affairs, student government, and Multicultural Affairs. Are these data broken out by department, or could they be broken out, to show how *your* majors perceive their learning, how *your* majors progress in their careers, or how *your* minority students perceive their learning experience?

#### What Are Your Structures and Processes for Feedback?

It is useful to define who in your department makes decisions about the following issues that may affect student learning and how each of these processes uses assessment data:

- Curriculum: overall course content and sequence
- Specific course content
- Pedagogy
- Testing, exams, and projects: shaping their content, helping students prepare
- Availability of labs, computers, library resources, and other aids to learning
- Tutoring
- Extra curricula such as department clubs, internships, and the like
- Out-of-class interaction between faculty and students, such as faculty having meals with students or talking with students
- Physical facilities
- Course staffing: Who teaches what?
- Inclusion of students in faculty research
- Course scheduling
- Class size
- Systems for student advising
- Systems for helping students who are having difficulty
- Other factors you believe may affect learning

What information about student learning is relevant to each of these decisions, and how is such information fed into the appropriate decision-making process?

#### How to Link Data and Action?

Chapter One discusses the need for data and hypotheses about the causes of student weaknesses in learning. In your department, when people have data about student weaknesses in learning, how do they decide what steps might improve the situation? Can you improve their access to the literature about learning in the field and their ease in using that literature? Can you improve the data-gathering process so as to yield information about *why* certain weaknesses in student learning are occurring and what actions might most effectively address the problem?

#### How Do Resources Support Change?

What is the relationship between data on student learning and the department's budgeting processes? When the department or some

faculty within the department have good ideas for improving student learning, what avenues are open to get their colleagues' support and appropriate funding?

#### How Is the Effectiveness of Change Assessed?

When the department makes a change intended to enhance student learning, what measures and processes are used to explore whether the change is working?

In sum, as a result of analyzing your departmental assessment audit and with the help of the questions listed, you will generate recommendations for improving your assessment processes and structures (see Appendix F). As these structures and processes become more effective, the department will feel the effects of the new information throughout all its decision making. Your primary focus should be not on onetime assessment or onetime fixes for whatever problems in learning turn up, but on building the structures and processes for ongoing assessment that yield good decision making in all areas consistently across time.

#### Recommend Actions to Improve Student Learning

In addition to recommendations for improving the assessment process, a department may also review assessment data and recommend actions to enhance student learning. The final example in Appendix F is the report of an economics department at a Research I university, which describes their assessment measures, summarizes what the data reveal, and goes on to recommend changes to enhance student learning.

If you undertake such recommendations, be sure that they can be heard, owned, and acted upon. For example, if assessment data show the department has a number of weaknesses, including student advising, it may be wise to focus just on advising. Make sure the entire department is familiar with the data and buys into the goal of improving it. Delegate responsibility for recommending changes to the best possible people in the department (those most capable of improving advising may be different from those on the assessment committee).

#### Construct Records and Reports

The committee will write whatever assessment report is necessary, following the guidelines of the accreditors or other audiences. In

#### Assessment Clear and Simple

the best scenario, reports and recommendations about assessment and learning are fed smoothly into departmental and institutional planning and budgeting (sample departmental reports are in Appendix F). In addition, the committee should review the department's Web site and brochures to be sure that departmental learning goals and assessment procedures are appropriately visible.

# Establish Ongoing Oversight for Assessment.

The goal is that assessment becomes a way of doing business for the department, integral to all its decisions about curriculum, pedagogy, staffing, budgeting, and other factors that affect learning. If assessment processes are well embedded into ongoing committees such as curriculum, undergraduate studies, and the like, the assessment committee may safely disband. However, in many cases, the committee may continue with ongoing responsibilities for tracking how well assessment is working in all the structures and processes of the department.

#### Additional Resources

If I were to compile a very small collection of resources on departmental assessment, I would include the following:

- Lucas and Associates (2000). Essays by various authors. Gardiner and Angelo are most helpful on assessment.
- Nichols (1995a, 1995b, and 1995c). Guides a detailed and extensive departmental assessment process, including cases.
- Banta, Lund, Black, and Oblander (1996). Contains a number of two- to four-page cases of department-level assessment.
- Walvoord and others (2000). How to understand and change departmental cultures.

#### Summary \_

In sum, this chapter has emphasized that a department should:

- Know its task, audiences, and purposes.
- Plan carefully for departmental discussion and collaboration.
- Articulate learning goals.

- Conduct an audit to discover where, within the curriculum, learning goals are being addressed and/or assessed and what measures are being used outside individual classrooms.
- Shape recommendations for improving the assessment mechanisms.
- Analyze assessment data to recommend changes in curriculum, pedagogy, or other aspects intended to improve student learning. The goal is to keep it simple and to use the assessment process for better decision making.

# APPENDIX

# Departmental Assessment Reports

The examples following show how departments can construct assessment reports for various graduate and undergraduate tracks or programs.

# Example 1: Majors, Department of Biology \_

This hypothetical example is based on assessment reports of several departments at various types of institutions. It shows how the biology department assesses learning goals for its undergraduate majors. Similar matrices would be produced for general education and graduate programs in the department.

#### Profile

Number of majors: \_

Number of faculty: \_\_\_full-time \_\_\_part-time \_\_\_teaching assistants Departmental factors that affect assessment and learning (for example, department is growing or shrinking rapidly, job market changing for graduates, field changing rapidly, large percentage of faculty retiring in next three years):

#### Learning Goals for Majors

- 1. Describe and apply basic biological information and concepts
- 2. Conduct original biological research and report results orally and in writing to scientific audiences
- 3. Apply ethical principles of the discipline in regard to human and animal subjects, environmental protection, use of sources, and collaboration with colleagues

Are these on the Web or otherwise readily available to students and faculty?

#### Assessment Measures

#### **Examples of Changes Based on Assessment**

- Two years ago, an advisory council of regional employers noted that our majors had a good level of biological knowledge but needed stronger skills in conducting biological research. Data from the alumni survey also supported this need. We instituted the required capstone course, which requires students to conduct original scientific research, and we asked the instructor annually to report to the department on student research and communication skills demonstrated by their capstone projects. In three years, when several cohorts of majors have passed through the capstone, we will again survey alumni and employers to see whether student skills have increased, and we will review data from all years of the capstone projects.
- The capstone instructor last year reported her impression of low graphing skills in seniors; we arranged with the mathematics department for greater emphasis on graphing in the required math course and for assessment of graphing skills during that course, working closely with the capstone instructor(s). The capstone instructor(s) will report next year whether graphing skills are stronger. Prof. Brody is currently developing a rubric to assess graphing skills more accurately.

#### **Recommendation for Improving Assessment Processes**

 Standardized national test is costly and time consuming to administer, has low student motivation in its current format, and results are difficult to map to our curriculum. Committee should review usefulness of the national test.

Measures	Goal 1	Goal 2	Goal 3	Use of Information
Standardized test is given to all seniors, and final exams are administered in three basic biology courses.	x		ſ	Data are reported to the department annually by the standardized exam committee and the instructors of the three basic courses. The department supports and encourages the instructors, takes any appropriate department-level actions, and reports meeting outcomes to dean or other body that has resources to address problems.
In senior capstone course, students complete an original scientific experiment, write it up in scientific report format, and make an oral report to the class. The teacher uses a set of explicit criteria to evaluate their work.	x	X	X	Annually, the senior capstone teachers share students' scores with the department. The department takes action, as above.
Alumni survey asks how well alums thought they learned to conduct and communicate scientific research.		×	X	Data reviewed annually by department for action, as above.
Sample of regional employers gathered two years ago to reflect how well our majors are doing and give advice to department.	x	x	X	Data reviewed by department for action, as above.

Table F.1. Assessment for Biology Majors

# Example 2: General Education Literature Course, Department of English

This hypothetical example is a report for a general education or core literature class taught by the English department. Similar reports would be submitted for other required general education courses.

#### Profile

Number of core lit students per year: \_\_\_\_\_ Average section size: \_\_\_\_\_

Percentage of sections	taught by full-time	faculty:
by part-time faculty:		T.A.:

Departmental factors that affect core lit assessment and learning (for example, changes in university-wide gen ed requirements, core lit newly being offered online, student numbers growing or shrinking rapidly, large percentage of faculty are retiring in next three years):

#### Learning Goals Course

- 1. During and after the course, students will read literature for pleasure.
- 2. Students will write a literary-critical essay demonstrating ability to use the techniques of literary analysis they have been taught in the class and to acknowledge alternative interpretations.
- 3. Students will reflect thoughtfully on their own ideas and values in response to works of literature.

Are these on the Web or otherwise readily available to faculty and students?

#### **Assessment Measures**

#### **Examples of Changes Based on Assessment**

• Minutes from the meetings on journals show that instructors express their intentions to adopt strategies they have heard in the meetings and report having done so. Percentage of journals that make thoughtful links has risen in the past three years from 47 percent to 68 percent.

#### **Recommendation for Improving Assessment Processes**

• Our goal is that students will form a lifelong habit of reading literature for pleasure. Yet we have data only on the core lit course and senior students. High rates of student employment and family responsibility at our institution mean that students' discretionary reading time is exceptionally limited during the college years. Could Institutional Research add a question to the next alumni survey asking whether alums have, in the past year, read a novel, poem, or short story, or attended a live drama performance, not required for academic credit?

#### Table F.2. Assessment for Core Literature Students

Measures	Goal 1	Goal 2	Goal 3	Use of Information
In all core lit courses, instructors assign an essay requiring students to apply literary critical methods to literature and to acknowledge alternative interpretations. They evaluate students' essays by explicit written criteria.	x			In annual meeting, core lit instructors report student scores to their colleagues who: • Collegially support the instructor's plans for improvement • Take appropriate action if needed at the department leve • Report results of the meeting to dean or other body with budgetary resources if needed
Each core lit course requires at least three two- to four-page journal entries in which students reflect the impact of the literature they read on their own thinking and values. Instructors evaluate the journals using a rubric that identifies those journal entries that merely summarize the literature, those that merely reflect on students' lives and values with little connection to the literature, and those that make thoughtful links between the literature and their own thinking. Instruc- tors report the percentage of student journals that make thoughtful links.		X		In an annual meeting, instructors share their evaluations of the journals and strategies for encouraging more reflective and thoughtful journals.
Survey administered to students at the end of each core lit class, asking whether, during that semester, they have read literature not required in class. Student survey administered by Institutional Research to all seniors asking whether they have read books not required in class.			x	Results reported annually to the department for discussion and action.

#### Example 3: Ph.D. Program, Department of Sociology

This hypothetical example is based on assessment reports of several departments at research universities. Following is the report for doctoral students. The department would also report its assessment for undergraduate majors and for other departmental programs or tracks.

#### Profile

Number of Ph.D. students:

Number of graduate faculty:

Departmental factors that affect graduate assessment and learning (for example, changes in job market, student numbers growing or shrinking rapidly, large percentage of graduate faculty are retiring in next three years):

#### Assessment Measures

#### Learning Goals for Ph.D. Students

- 1. Produce publishable research in the field
- 2. Follow ethical principles of the discipline for citing sources, using human subjects, and working with colleagues
- 3. For those bound for college teaching: teach effectively

#### **Examples of Changes Based on Assessment**

- Based on departmental dissatisfaction with the publication rate of graduate students, a new graduate course, "Publishing in Sociology," was added three years ago, which has resulted in a threefold increase in the number of graduate student publications in refereed journals.
- In response to graduate student exit interviews requesting teaching experience with different kinds of students, two teaching internships per year were developed for students to teach sociology in a nearby community college and a small liberal arts college.

#### **Recommendation for Improving Assessment Processes**

• Faculty visitation to T.A. classes is not happening as regularly as it should. Faculty complain that the rubric is not adequate. Committee should review this entire assessment procedure and recommend changes by next fall.

Measures	Goal 1	Goal 2	Goal 3	Use of Information
Graduate student publications (collected by graduate school and by departmental advisors)	x		-	Reviewed annually by director of graduate studies and presented to graduate faculty for action as needed.
Job placement (collected as above)	x	x	x	Reviewed annually by director of graduate studies and presented to graduate faculty for action as needed.
501, Research Methods: Exam questions test students' knowledge of ethical principles and application to sample cases		X		501 Instructor(s) report results to director of graduate studies, who presents to graduate faculty for action as needed.
630, Teaching Sociology: Students prepare syllabi, give lectures, lead discussions. Instructor evaluates these with a rubric	*		x	630 Instructor(s) report results to director of graduate studies, who presents to graduate faculty for action as needed.
Student exit interviews conducted by graduate school	x	x	x	Graduate school reports results for sociology students to director of graduate studies, who presents to graduate faculty for action as needed.
A faculty member visits the classroom of every teaching assistant at least twice a semester and prepares a written analysis of the quality of teaching, using a departmental rubric			x	Faculty visitors report annually to the department for action as needed.

### **Table F.3. Assessment for Sociology Doctoral Students**

# Example 4: Economics Department Undergraduate Majors \_

*Note:* This report, unlike those above, includes actual data on student learning. The assessment committee thus undertook *both* of the possible tasks: analyzing assessment processes for recommendations about improving those processes *and* analyzing assessment data for recommendations about student learning. Because the department presents actual data, they use a slightly different format. They list each learning goal, then show the assessment method and the data that each method produced. This report is adapted from an assessment report prepared by Prof. Philip Way for the Department of Economics at the University of Cincinnati.

*Measures of Student Learning for B.A. in Economics, B.A. in Business Economics* 

- Survey of alumni, conducted with help of the Office of Institutional Research
- Focus groups of current students, who met for an hour with the assistant chair
- Analysis of the senior capstone research projects evaluated according to the faculty members' criteria
- Audit of transcripts of majors to determine which courses they took and in which sequences

#### Goals, Assessment Methods, and Findings

1. Critical thinking (analytical) and communication skills to enable undergraduate students to think and communicate like economists (in other words, to become skilled in the logic and rhetoric of economics).

- A. To use mathematical methods to represent economic concepts and to analyze economic issues
  - *Surveys:* Average rating of 4.33 (helped somewhat) on a fivepoint scale (1–5). Achievement of this objective is rated 4 out of 12 objectives.
  - *Focus Groups:* Amount of math varies among classes maybe calculus should be required.
  - Capstone: Papers and presentations: none included math.
- B. To represent economic relationships in terms of theoretical models

*Surveys:* Average rating of 4.33 (helped somewhat). Ranked 4 of 12.

- *Focus Groups:* Achievement is aided by having T.A. sessions. Good foundation if taken before other courses.
- *Capstone:* Models used in papers and presentations with reasonable success.

C. To gather economic data pertinent to economic theories in order to analyze economic questions

*Surveys:* Average rating of 4.17 (helped somewhat). Ranked 7 of 12.

Focus Groups: Library research used in a few classes only.

*Capstone:* Students showed an ability to collect data but overrelied on the Web.

D. To use statistical methods to analyze economic questions

*Surveys:* Average rating of 3.83 (helped somewhat). Ranked 10 of 12.

*Focus Groups:* Limited exposure. Complaint about book used. *Capstone:* Little evidence of statistical methods.

E. To use statistical computer software to analyze economic issues

Surveys: Average rating of 3.33 (no effect one way or the other). Ranked 12 of 12.

*Focus Groups:* Concern that software used in career will be different.

*Capstone:* Little evidence of use.

F. To express economic ideas succinctly and professionally in writing

Surveys: Average rating of 4.17 (helped somewhat). Ranked 7 of 12.

*Focus Groups:* Writing required more than speaking. In particular, research papers required in 558 and 575.

*Capstone:* Writing skills in economics generally acceptable, but not "very good" or "excellent."

G. To express economic ideas succinctly and professionally orally

Surveys: Average rating of 4.5 (helped somewhat/significantly). Ranked 2 of 12.

Focus Groups: Most courses do not involve oral communication, although it would be useful after graduation in the workforce. One idea was a sequence of courses in communication as part of the Arts and Science college requirements. More discussion and presentations were advised.

*Capstone:* Presentations revealed a lack of training in how to present as well as nerves.

2. *Content:* To master key economic concepts and fields and to understand how the field works in practice and what economists do.

A. To master key economics concepts

*Surveys:* Average rating of 4.5 (helped significantly). Ranked 2 of 12.

Focus Groups: No complaints.

B. To understand economics in general, and at least two fields of economics in depth (one field for Business Economics)

*Surveys:* Average rating of 4.33 (helped somewhat). Ranked 4 of 12.

- *Focus Groups:* Students like being able to choose what interests them. Exposure to variety was said to be helpful. Business Economics students appear to have more diverse training.
- *Audits:* [Report presents the courses actually taken by majors and their sequence]
- C. To understand international economics and economic development

*Surveys:* Average rating of 4.0 (helped somewhat). Ranked 9 of 12.

*Focus Groups:* Students like this recommendation—useful.

*Audits:* The average student completes 2.3 courses in international/development.

D. To understand how the economy works in practice and what economists do

*Surveys:* Average ratings of 4.67 (helped significantly) and 3.67 (helped somewhat). Ranked 1 of 12 and 11 of 12.

*Focus Groups:* Students like having guest speakers in class. At present, few think they know what economists do. Some advocated a broader co-op program.

*Capstone:* Students exposed to several speakers who are economists. Learned what they do.

#### **Recommendations for Student Learning**

Main weaknesses are in:

- Achievement of learning goals related to statistical methods and software
- Knowledge about what economists do

Survey indicated that the program did not facilitate exposure to international and development economics, but data from focus groups and course audits showed otherwise. No changes were therefore made.

Steps taken:

- Last year introduced premajor course (Computer and Data Resources in Economics) for better preparation in statistical methods and software
- Capstone course changed to provide more information about what economists do

#### **Recommendations for Assessment Processes**

- Surveys of Recent Graduates: A low response rate (20 percent) continues to be a concern. While we prefer to delay sending out the surveys because we wish to learn of students' new positions, it may be better to mandate that students complete them before graduation.
- *Focus Groups:* These have proven to be a source of rich, detailed data. The time cost is small. We will continue them.
- *Course Audits:* These are easy to do because we have graduation checklists in place that we use for verifying eligibility for graduation. We will continue to do these audits. Limitation: they tell us what students were exposed to, not necessarily what they learned or remember.
- *Capstone:* The capstone is intended to achieve many of the program goals. It is easy to rate student work products in terms of the objectives. Limitation: the students are not graded on whether they achieve all the program goals—for example, they do not have to use statistical software, but they might choose to.