



Prepared by: The Educational Assessment Committee (2013)

Table of Contents

University of Redlands Assessment Principles	3
Nine Principles of Good Practice for Assessing Student Learning	4
What is Program-Based Assessment?.....	6
<i>What is assessment?.....</i>	<i>6</i>
<i>Where should this work take place?.....</i>	<i>6</i>
<i>Why assess?.....</i>	<i>6</i>
<i>Who decides the assessment procedures?.....</i>	<i>7</i>
<i>What will assessment be used for?.....</i>	<i>7</i>
<i>What will assessment not be used for?.....</i>	<i>8</i>
<i>How can my EAC Liaison help me?.....</i>	<i>8</i>
Chapter Two	9
Defining Learning Outcomes.....	9
<i>Learning Goals.....</i>	<i>9</i>
<i>Learning Outcomes.....</i>	<i>9</i>
Chapter Three	12
Planning the Assessment Program.....	12
Chapter Four.....	13
Assessment Strategies and Methods.....	13
<i>Indirect / Direct Assessment Methods.....</i>	<i>14</i>
Chapter Five.....	16
Analyzing, Reporting, and Using Results.....	16
Appendices	17
Appendix 1-A	17
Goal Definition Worksheet.....	17
Appendix 1-B	18
Outcomes Worksheet.....	18
Appendix 2-A Assessment Plan Template	19
<i>Appendix 2-C Summary Curriculum Map</i>	<i>22</i>
Appendix 2-D Annual Assessment Report Template.....	24

Most forms may also be found at: <http://www.redlands.edu/academics/7914.aspx>

University of Redlands Assessment Principles

1. Assessment work at the University of Redlands is motivated by a commitment to improve the institution's effectiveness in fostering student learning within the framework of our liberal arts mission.
2. Educational effectiveness results from multiple factors, such as the quality of courses, the coherence of academic programs, the integration of student life programs with student learning, the motivation, capacities, and preparation of learners, and the adequacy of administrative support for learning. Assessment findings will be used to improve student learning in all of these areas.
3. Faculty (tenure track and term contract) and student life professionals shall control the entire process of assessment of student learning in their own programs. The Educational Assessment Committee, in coordination with Academic Affairs, will set the general parameters and timetable for assessment.
4. While faculty and student life professionals control the assessment process, they are not responsible for maintaining, aggregating, and analyzing data across programs.
5. Assessment findings will not be used to evaluate individual faculty in the review process.
6. All programs are expected to develop and implement assessment plans. The purpose of program level assessment is to generate opportunities to improve the quality of the program and increase its educational effectiveness. Assessment data is not to be used to rank programs or compare their quality; rather, the function of assessment is improvement of educational effectiveness.
7. To the extent assessment findings are used in the allocation of resources, priority should be given to improving learning outcomes in programs that have used the assessment process effectively to identify meaningful opportunities to improve student learning.
8. Programs must assess student learning through direct methods, however, because the learning outcomes and assessment approaches vary widely across disciplines, the methods used to directly assess student learning and the data collected need not be standardized across programs and schools.
9. Programs must follow the guidelines and criteria promulgated by the Assessment Committee when they report their data and assessment findings.
10. The university administration will provide resources to make assessment activities manageable within faculty workload expectations.
11. Programs should look for productive opportunities to involve students in assessment design.

Approved by the Faculty Assembly and endorsed by the Vice-President for Academic Affairs in 2009.

Nine Principles of Good Practice for Assessing Student Learning

American Association for Higher Education ASSESSMENT FORUM

1. The assessment of student learning begins with educational values.

Assessment is not an end in itself but a vehicle for educational improvement. Its effective practice, then, begins with and enacts a vision of the kinds of learning we most value for students and strive to help them achieve. Educational values should drive not only *what* we choose to assess but also *how* we do so. Where questions about educational mission and values are skipped over, assessment threatens to be an exercise in measuring what's easy, rather than a process of improving what we really care about.

2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.

Learning is a complex process. It entails not only what students know but what they can do with what they know; it involves not only knowledge and abilities but values, attitudes, and habits of mind that affect both academic success and performance beyond the classroom. Assessment should reflect these understandings by employing a diverse array of methods, including those that call for actual performance, using them over time so as to reveal change, growth, and increasing degrees of integration. Such an approach aims for a more complete and accurate picture of learning, and therefore firmer bases for improving our students' educational experience.

3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes.

Assessment is a goal-oriented process. It entails comparing educational performance with educational purposes and expectations—those derived from the institution's mission, from faculty intentions in program and course design, and from knowledge of students' own goals. Where program purposes lack specificity or agreement, assessment as a process pushes a campus toward clarity about where to aim and what standards to apply; assessment also prompts attention to where and how program goals will be taught and learned. Clear, shared, implementable goals are the cornerstone for assessment that is focused and useful.

4. Assessment requires attention to outcomes but also, and equally, to the experiences that lead to those outcomes.

Information about outcomes is of high importance; where students "end up" matters greatly. But to improve outcomes, we need to know about student experience along the way—about the curricula, teaching, and kind of student effort that lead to particular outcomes. Assessment can help us understand which students learn best under what conditions; with such knowledge comes the capacity to improve the whole of their learning.

5. Assessment works best when it is ongoing not episodic.

Assessment is a process whose power is cumulative. Though isolated, "one-shot" assessment can be better than none; improvement is best fostered when assessment entails a linked series of activities undertaken over time. This may mean tracking the process of individual students, or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals in a spirit of continuous improvement. Along the way, the assessment process itself should be evaluated and refined in light of emerging insights.

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

Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Thus, while assessment efforts may start small, the aim over time is to involve people from across the educational community. Faculty play an especially important role, but assessment's questions can't be fully address without participation by student-affairs educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus (alumni/ae, trustees, employers) whose experience can enrich the sense of appropriate aims and standards for learning. Thus understood,

assessment is not a task for small groups of experts but a collaborative activity; its aim is wider, better-informed attention to student learning by all parties with a stake in its improvement.

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

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

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

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

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

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

Chapter One

What is Program-Based Assessment?

What is assessment?



Education assessment is a process involving the development and implementation of a system for collecting and analyzing data in order to improve student learning—by which is meant, the knowledge, skills, and competencies that students are expected to acquire and master over time.

It occasions an explicit articulation of what faculty deem to be important for students to learn and to be able to do, given the degree-granting program’s or department’s own missions within the context of a larger liberal arts mission.

Where should this work take place?



At the University of Redlands, assessment work takes place at the program or departmental level rather than at the course level. It is meant to capture in the aggregate what students can do rather than focusing on specific students or specific courses or specific faculty members (see “Assessment Principles”).

Why assess?



When done systematically, assessment can help faculty ascertain what students should be learning, what students are actually learning, and what faculty can do to encourage and facilitate student learning.

Informally, faculty always and already participate in the process of assessment whether by considering what works or does not work in a particular assignment, a lecture or discussion, or a course.

Systematic, mission-driven, ongoing and cumulative, pragmatic, and faculty-designed and implemented, assessment work can also speak to outside audiences (including students, colleagues, external evaluators for program review, alumni, etc.) about a program’s educational effectiveness—that is, its successes and strengths.

The greatest benefit of formal and systematic program assessment—that is, assessment that is ongoing and cumulative—is that it can yield reliable evidence about instruction and learning across a department or program. In turn, this evidence-based assessment can give faculty a greater sense of what is occurring in a given program and provide faculty with some direction when considering any necessary revisions to or refinement of the curriculum.

Who decides the assessment procedures?



One of the common concerns about assessment is that it is an external, top-down imposition upon faculty; however, at the University of Redlands, faculty members are primarily responsible for assessment, and thus have direct responsibility for establishing learning outcomes and for identifying processes for assessing them, verifying whether they have been reached, and pursuing future directions.

As has been specified elsewhere:

When developing and implementing assessment strategies, academic units should have at least one of three purposes in mind: to improve, to inform, and/or to prove. The results from an assessment process should provide information that can be used to determine whether or not [sic] intended outcomes are being achieved and how the programs can be improved. An assessment process should also be designed to inform departmental faculty and other decision-makers about relevant issues that can impact the program and student learning. (University of Massachusetts, Amherst, "Program-Based Review And Assessment Tools And Techniques For Program Improvement," [2001], 7; adapted from the University of Wisconsin-Madison, "Using Assessment for Academic Program Improvement, [April 2000]).

What will assessment be used for?



At the University of Redlands, ongoing assessment of student learning outcomes helps us understand, and thereby improve, student learning through informed decision-making and planning.

Assessment of student learning may include multiple measures. As such, the measures used by department/programs may vary across the university. Specific measures may depend upon both the learning goals and the methods of assessment most appropriate for specific curriculum. Indicators of student learning can be expressed as narratives, a performance, or numbers.

More specifically, assessment helps us:

- Improve services, feedback, guidance, and mentoring to students in order to help them better plan and implement their educational programs;
- Design and improve programs and courses;
- Plan at the department and program level;
- Identify shared definitions and measurable benchmarks for evaluating student abilities;
- Understand how groups of students experience the university differently and respond appropriately to the needs of all students;
- Align and coordinate courses within and across disciplines;
- Align and coordinate courses and programs with external institutions' requirements as necessary;
- Continuously reflect, refine and modify teaching and learning practices.

What will assessment not be used for?



Effective assessment relies upon a climate of trust and freedom of inquiry. As faculty, we perform assessments of student learning and control the results of our assessments. Data gathered in support of all learning assessment work shall be aggregated so as to remove the identity of any students, faculty, and/or staff.

Checklist for Effective Program Assessment:

- Agree on program's mission**
- Create student learning outcomes**
- Identify places where each outcome is introduced, developed, or mastered**
- Brainstorm appropriate measures**
- Evaluate and select measures**
- Identify appropriate assessment methods**
- Develop a plan for collecting data**
- Set timeline of five- and two-year cycles for assessment**
- Implement assessment plan**
- Use data to improve processes**
- Communicate results**

(University of Massachusetts, Amherst, "Program-Based Review And Assessment Tools And Techniques For Program Improvement," [2001] 8; adapted from Hatfield, Susan, Department Level Assessment: Promoting Continuous Improvement [1992]).

How can my EAC Liaison help me?

- Each academic year, the Educational Assessment Committee (EAC) conducts its work by means of program and departmental liaisons. Liaisons from the EAC assist and support the assessment work of departments and programs.
- You will be contacted in the fall semester by your EAC liaison, who will arrange a meeting in which you discuss your assessment plan and methods, your assessment goals, and any concerns you might have about the work ahead of you for that academic year's assessment cycle.
- The liaison will contact you periodically throughout the academic year in order to remind you of deadlines, to see whether you need any support from the EAC, and to inform you of any workshops or other programming sponsored by the EAC.
- On the date that you are to submit your Annual Assessment Report (as indicated on your Two-Year Assessment Plan), please send the report to your EAC liaison. Shortly after you submit your Report, the liaison will contact you should he/or she have any questions. So that you and your colleagues are able to address future directions of your assessment work, you will also receive written feedback on your report from your EAC liaison. You will have an opportunity, should you desire to do so, to revise your report prior to your liaison's uploading of it to the Academic Assembly Moodle page.

Chapter Two

Defining Learning Outcomes

The most successful program assessment begins with a sense of program goals and mission; that is, what a program hopes to accomplish. Much of what a program hopes to accomplish centers on fostering student learning and increasing their competencies, knowledge, and skills. Successful programs start their assessment work by identifying what they want students to learn, understand, and be able to do upon successful completion of their studies

Learning Goals

Are general statements about the aims, values, or purposes of the curriculum, and these statement may lend themselves to multiple interpretations.

Examples of learning goals include:

- Critical thinking
- Civic Engagement
- Knowledge of a discipline
- Problem-Solving skills
- Understand the scientific method

For the purposes of assessment at the University of Redlands, you are encouraged to begin your assessment of student learning by defining the goals you want to accomplish and the mission you and your colleagues want to promote. The latter (programs' mission statements) are typically found in such documents as catalogs, admissions brochures or "one-sheets," program review self-studies, etc.

Learning Outcomes

Articulate what a student does that demonstrates progress toward these goals. Students should be able to reliably demonstrate this skill or competence upon completion of the program of study. Outcomes thus define how students meet the program's learning goals as a result of completing the curriculum.

Cognitive Outcomes

What does a program want its graduates to know?

Affective Outcomes

What does a program want its graduates to think or care about?

Behavioral Outcomes

What does a program want its graduates to be able to do?

Once you have identified your goals and missions, you can begin to draft and sketch out the student learning outcomes (SLOs). SLO's typically assume three forms:

These three types can be combined in any way. In addition to being organized by types, outcomes can also be ordered into different levels. Working with WASC recommendations, the University of Redlands faculty has differentiated levels of mastery by three categories:

Introduced

The minimum competencies, skills, or knowledge that students need to acquire and practice before they move on to other levels of study and of achievement within a program or discipline or interdisciplinary area.

Developed

Higher order or more complex levels of competencies than at the introductory level of competency and that students demonstrate with varying degrees of progress.

Mastered

The most advanced level of accomplishment for graduates in a given disciplinary or interdisciplinary program. Such a level of accomplishment is usually manifested near the end of a program of study.

Some examples of learning goals and learning outcomes include the following:

Learning Goal

- Know the literature of the field
- Develop a meaningful research question based upon the literature
- Think critically
- Interpret, analyze, or evaluate evidence, in order to construct arguments
- Understand the scientific method

Learning Outcome

- Generate hypotheses based on data
- Design tests of the hypotheses
- Understand interpretive approaches
- Interpret texts using two or more of the following approaches: x, y, z
- Be aware of different cultures
- Describe different cultural assumptions

Program outcomes are statements of what graduates are expected to be able to do. Therefore, each contains an action verb.

The verbs in the table below are taken from Bloom and Krathwohl's Taxonomy of Educational Objectives (1956). It, along with the more recent modification (Anderson & Krathwohl, 2001), may be accessed at: <http://artsliteracyarts.wikispaces.com/file/view/Bloom's+taxonomy+updated.Anderson+and+Krathwohl.pdf>.

These taxonomies have played central roles in helping curriculum developers articulate their outcomes. Both versions assume that learning outcomes will progress from the more simple (e.g., knowledge, on the left side of the table below) to the successively more complex (e.g., evaluation, on the right side of the table).

Whereas a program might state one or another of its intended program outcomes at a simple level (e.g., "Graduates will be able to define the key terms in this discipline"), it is generally expected that programs will articulate at least some learning outcomes that focus on higher level intellectual skills (e.g., "Graduates will be able to design a treatment program to address client needs"). In these two examples,

define speaks to simple knowledge, whereas to design something speaks to the program graduate being able to synthesize information.

Bloom's Taxonomy

The following taxonomy of cognitive skills is useful when developing learning outcomes:

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Count	Associate	Add	Analyze	Categorize	Appraise
Define	Compute	Apply	Arrange	Combine	Assess
Describe	Convert	Calculate	Breakdown	Compile	Compare
Draw	Defend	Change	Combine	Compose	Conclude
Identify	Discuss	Classify	Design	Create	Contrast
Labels	Distinguish	Complete	Detect	Drive	Criticize
List	Estimate	Compute	Develop	Design	Critique
Match	Explain	Demonstrate	Diagram	Devise	Determine
Name	Extend	Discover	Differentiate	Explain	Grade
Outlines	Extrapolate	Divide	Discriminate	Generate	Interpret
Point	Generalize	Examine	Illustrate	Group	Judge
Quote	Give examples	Graph	Infer	Integrate	Justify
Read	Infer	Interpolate	Outline	Modify	Measure
Recall	Paraphrase	Manipulate	Point out	Order	Rank
Recite	Predict	Modify	Relate	Organize	Rate
Recognize	Rewrite	Operate	Select	Plan	Support
Record	Summarize	Prepare	Separate	Prescribe Propose	Test
Repeat		Produce	Subdivide	Rearrange	
Reproduces		Show	Utilize	Reconstruct	
Selects		Solve			
State					
Write					

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition*. New York: Longman.

Bloom, Benjamin S. & David R. Krathwohl. (1956). *Taxonomy of educational objectives: The classification of educational goals, by a committee of college and university examiners. Handbook 1: Cognitive domain*. New York: Longmans.

Chapter Three

Planning the Assessment Program

Following achieving consensus with your colleagues on the learning goals and outcomes for your program, the next step in your assessment work is to create an inventory of where the outcomes appear and at what level they appear in the curriculum.

In other words, your goal is to identify where the outcomes are addressed in the curriculum.

This plotting or inventory of the curriculum is typically done via a “[Curriculum Map Template](#)” (appendix 2-C). On one side of the map, the outcomes are listed; the courses appear at the top of the map, and the boxes indicate where the outcomes are introduced, developed, and mastered

After completing and discussing the “[Curriculum Map Template](#)” with your colleagues, you will want to agree on a plan for the actual assessment of student artifacts or evidence.

The Five- and Two-Year Plans

At the University of Redlands, assessment plans are organized into a five-year plan, which are more general in their scope, and a detailed two-year assessment plan (the templates for both types of plans can be found in Appendices 2-A and 2-B).

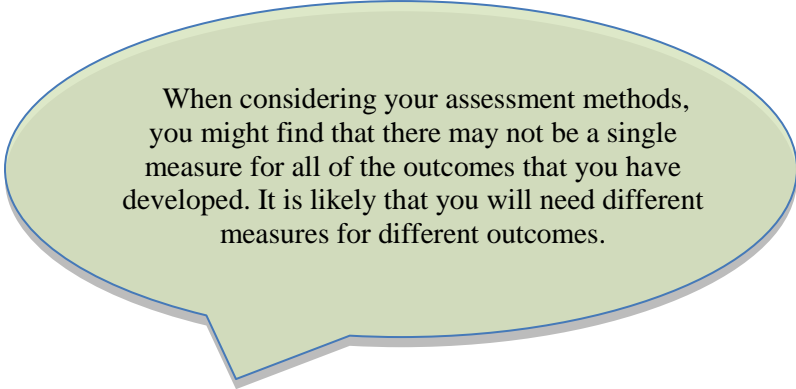
In the detailed two-year assessment plan, you are asked to indicate the outcome to be assessed in each of the two years, the evidence of student work to be collected (and the date by which this will be done), the training of evaluators (and the date by which this will be done), the assessment tools and methods to be used, the interpretation of results (and the date by which this will be done), and the date by which the completed assessment report will be submitted (for more on the latter, see chapter five of this document).

The five- and two-year plans will guide you as you work on assessment each year with your colleagues. One of the appendices of each of your program’s annual Assessment Report will include a revised assessment plan, for five and two years) and in which you will “roll forward” your two- and five-year plans so that the old year two, for example, becomes the new year one.

Chapter Four

Assessment Strategies and Methods

Assessment strategies and methods are essential to your being able to arrive at answers to the questions that you and your colleagues have about how your program is doing with respect to student learning. They should be selected based on the resources—time, people, materials, etc.—you have to commit to assessment. In addition to seeking answers to your questions and deciding how best to use the resources available to you (requests for assessment resources can be submitted to the Office of the Provost), you will also want your assessment efforts to provide you with useful feedback. The most significant feedback will pertain to those areas where you have done well in helping students to achieve outcomes and to those areas where there is room for improvement.



When considering your assessment methods, you might find that there may not be a single measure for all of the outcomes that you have developed. It is likely that you will need different measures for different outcomes.

Moreover, you want to consider matching your measures and methods with the kinds of evidence that you collect. Assessment evidence assumes two forms: direct evidence and indirect evidence.

Direct evidence consists of those indicators demonstrating student learning, and indirect evidence is what students think about their learning. The former includes exams, performances papers, presentations, portfolios, and the latter includes surveys and interviews. You will want to be selective in choosing the evidence that you would like to assess. It is not possible to assess everything.

For undergraduate programs, the EAC recommends that you consider “us[ing] capstone courses or senior assignments to directly assess student learning outcomes.”

The advantage of using evidence from “capstone courses and senior assignments [is that the courses and assignments tend to] promote faculty student interaction and scholarly inquiry; they allow demonstration of academic breadth; and they allow demonstration of ability to synthesize and integrate knowledge and experiences” (University of Massachusetts, Amherst, Program-Based Review and Assessment, [2001], 32).

As stated in the University of Massachusetts handbook on program review and assessment, “[i]f you use this method, however, care should be taken that:”

- the course and its assignments are truly representative of requirements for the major;
- the course curriculum and assignment evaluation (or products) are consistent across sections;
- students understand the value and importance of the capstone course or senior assignment and take this requirement seriously. (University of Massachusetts, Amherst, Program-Based Review and Assessment, [2001], 32).

Finally, one of the most mistaken notions about assessment is that it calls for quantitative methods only; however, it is equally valid to use qualitative methods such as observations, interviews, and surveys.

Indirect / Direct Assessment Methods

Assessment evidence may be **direct** or **indirect**, although indirect methods alone are not considered to be sufficient evidence. The examples of direct and indirect methods of assessment below are from Saddleback College's "Guide to Developing and Assessing Student Learning Outcomes and Administrative/Service Unit Outcomes".

Examples of direct methods of assessment include:

- **Capstone Course Evaluation:** Capstone courses integrate knowledge, concepts, and skills associated with an entire sequence of study in a program. This method of assessment is unique because the courses themselves become the instruments for assessing student teaching and learning. Evaluation of students' work in these courses is used as a means of assessing student outcomes. For academic units where a single capstone course is not feasible or desirable, a department may designate a small group of courses where competencies of completing majors will be measured.
- **Classroom Assessment:** Often designed for individual faculty who wish to improve their teaching of a specific course but can also be used on the program level.
- **Collective Portfolios:** Faculty assembles samples of student work from various classes and use the "collective" to assess specific program learning outcomes.
- **Commercially Produced or Standardized Tests:** Commercially generated or standardized tests are used to measure student competencies under controlled conditions. Tests are developed and measured nationally to determine the level of learning that students have acquired in specific fields of study. For example, nationally standardized multiple-choice tests are widely used and assist departments in determining programmatic strengths and weak-nesses when compared to other programs and national data.
- **Embedded Questions on Assignments or Exams:** Questions related to program learning outcomes can be embedded within course assignments or exams. For example, all sections of a "research methods" course could include a question or set of questions relating to your program SLOs. Faculty grade the exams as usual and then copy exam questions that are linked to the program SLOs for analysis. The findings are reported as an aggregate.
- **Locally Developed Exit Exams:** Faculty can create an objective exam for graduating students that is aligned with the program SLOs. Performance expectations should be delineated prior to obtaining results.
- **Pre-Test/Post-Test Evaluations:** Pre-test/post test assessment is a method used by academic units where locally developed tests and examinations are administered at the beginning and at the end of courses or academic programs. These test results enable faculty to monitor student progression and learning throughout prescribed periods of time. The results are often useful for determining where skills and knowledge deficiencies exist and most frequently develop.
- **Observations:** Observations of any behavior such as student presentations or students working in the library can be used for assessment. Observations can be recorded as a narrative or in a highly structured format, such as a checklist, and they should be focused on specific program SLOs.
- **Scoring Rubrics:** Rubrics can be used to score any product or performance such as essays, portfolios, recitals, oral exams, etc. A detailed scoring rubric that delineates criteria used to discriminate among levels is developed and used for scoring. Generally two raters are used to review each product and a third rater is used to resolve discrepancies.
- **Transfer Records:** For community colleges, the data on transfer student success in upper division courses is extremely valuable. Cal-PASS, a system of data sharing between all the systems of education in California, may be helpful.

- **Videotape or Audiotape Evaluations:** Videotapes and audiotapes have been used by faculty as a kind of pre-test/post-test assessment of student skills and knowledge. Disciplines, such as theatre, music, art, and communication, which have experienced difficulty in using some of the other assessment methods have had significant success in utilizing videotapes and audiotapes as assessment tools.

Examples of indirect methods of assessment include:

- **Alumni Surveys:** Surveying of alumni is a useful assessment tool for generating data about student preparation for professional work, program satisfaction, and curriculum relevancy. As an assessment supplement, alumni surveying provides departments with a variety of information.
- **Employer Surveys:** Employer surveys can provide information about the curriculum, programs, and students that other forms of assessment cannot produce. Through surveys, departments traditionally seek employer satisfaction levels with the abilities and skills of recent graduates. Employers also assess programmatic characteristics by addressing the success of students in a continuously evolving job market.
- **External Reviewers:** Peer review of academic programs is a widely accepted method for assessing curricular sequences, course development and delivery, and the effectiveness of faculty. Using external reviewers is a useful way of analyzing whether student achievement correlates appropriately with departmental goals and objectives.
- **Student Exit Interviews/Surveys:** Students leaving the college are interviewed or surveyed to obtain feedback. Data obtained can address strengths and weaknesses of the program and/or assess relevant concepts, theories or skills. (from College of the Redwoods, Assessment Handbook)

Chapter Five

Analyzing, Reporting, and Using Results

You will find that the data resulting from your assessment work can be illuminating with respect to your program's facilitation of student learning. Upon analysis and interpretation of them, your data should answer your questions about student success, and they can tell you more about what program improvements might be desirable.

Best Ways to Analyze and Interpret Assessment Information

In its faculty handbook on program assessment, the University of California at Chico (1998) recommends:

- Presenting data in relation to identified goals and outcomes
- Selecting and using appropriate procedures for data analysis
- Using qualitative and quantitative methods to present a well-balanced picture of the program
- Keeping in mind the audiences who will access and use the data, and varying your analysis and reporting procedures according to the identified audience
- Preparing written statements that identify and elaborate on the pros and cons of the academic program
- Developing recommendations based on analysis of data, and using identified goals as a framework within which to accomplish these changes (quoted in University of Massachusetts, Amherst, Program-Based Review and Assessment, [2001], 50)

What do the data say about your students' mastery of your program's outcomes?

Where are students doing exceptionally well, and where are there students consistently not doing well?

Where do you want to see higher levels of performance, and how might you use the data to ensure higher performance levels?

The answers to these questions will guide you as you write your "Annual Assessment Report" (Appendices 2-D)

As with any rhetorical situation, you will want to consider the audience and purpose of the report. Potential audiences for assessment reports include students, colleagues, alumni, external evaluators for program reviews, and accrediting bodies.

Regardless of your audience, you will want to report what you did, why you did it, what you found, how you will use your findings, and what changes you might make to your assessment plan and processes in the future.

Appendices

Appendix 1-A

Goal Definition Worksheet

Each 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. 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?

(University of Massachusetts, Amherst, "Program-Based Review And Assessment Tools And Techniques For Program Improvement," [2001] 16; adapted from the Ball State University, Assessment Workbook [1999])

Appendix 1-B

Outcomes Worksheet

This worksheet may help you create specific outcomes related to the goals you have identified. Have all faculty members complete the worksheet. Meet as a group to discuss your response and try to reach consensus on desired objectives and outcomes. Remember that an *outcome* is the *specific learning behavior that the student should demonstrate* in the context of achieving the goal. You may end up with more than one outcome for each goal.

Program Goal	Outcome(s)
1.	a) b) c)
2.	a) b) c)
3.	a) b) c)
4.	a) b) c)
5.	a) b) c)

University of Massachusetts, Amherst, Program-Based Review and Assessment, (2001), 17.

Appendix 2-A Assessment Plan Template

Assessment Plan Template

Program:

Date:

Contact for Questions:

- I. List the current student learning outcomes.
- II. Complete the *Five Year Student Learning Outcomes Assessment Plan* template.
- III. Complete the *Detailed Timeline for First Two Years of Assessment Plan* template.
- IV. Address the following issues:
 - a. **Plan Coherence:** How do the proposed steps work together to provide information needed to improve student learning?
 - b. **Plan Evaluation:** How will the program assess the effectiveness of their plan? Who is responsible for oversight?
 - c. **Resources:** If the program needs new resources in order to implement the plan successfully, explain the rationale for these resources. If requested resources are not available, how will the program modify its plan? How significantly will those modifications impair the quality of the evidence collected or analysis generated?

Five Year Student Learning Outcomes Assessment Plan

This template is designed to help programs think about the best way to sequence their assessment activities by producing a general overview of the program’s plans, but it is not definitive. Future plans can and will be modified based on insights and changes generated by earlier assessment results. The template should show how all program outcomes are assessed at least once over a five-year period, using direct evidence of student learning. Be as detailed as appropriate, given your current program needs and resources.

	Outcome(s) Assessed	Evidence to be Collected	How Evidence Collected Demonstrates Outcome	Method of Analysis to be Used
Year One				
Year Two				
Year Three				
Year Four				
Year Five				

Appendix 2-B Detailed Timeline for First Two Years of Assessment Plan

Detailed Timeline for First Two Years of Assessment Plan						
Follow instructions below.						
		Evidence Collected	Methods of Analysis	Evaluator Training	Interpretation of Results	Report and Feedback
Year One	[Enter outcome(s) to be assessed in this cell.]					
	Date Completed:					
	Who Responsible:					
	Resources Used:					
Year Two	[Enter outcome(s) to be assessed in this cell.]					
	Date Completed:					
	Who Responsible:					
	Resources Used:					

Appendix 2-C Summary Curriculum Map

Summary Curriculum Map

If the course requires students to produce an artifact demonstrating student learning relevant to the outcome, indicate by placing the appropriate letter in the box (I = Introduced; D = Developed; M = Mastered).

	COURSES													
LEARNING OUTCOMES														

Instructions for “Detailed Timeline for First Two Years of Assessment Plan” Template

For each column, answer the questions detailed below; indicate when the work should be complete, who is responsible for completing it, and what resources will be used to complete the work:

Evidence Collected

Learning outcomes are assessed based on an analysis of direct evidence of student learning. The program should identify student work in which students are expected to address the learning outcome to be assessed. The work should allow an analysis of the level of proficiency students have achieved for the outcome. In the template, please address the following issues:

1. What direct evidence will be collected? Direct evidence includes (but is not limited to) assigned course work, senior projects/theses, capstone projects, exhibits and performances, standardized disciplinary exams, portfolios, oral examinations, etc.
2. Where is the evidence produced by students?
3. How will the evidence be collected? If work is to be sampled, how will the sampling process be organized?
4. How will the evidence be stored for future reference?

Methods of Analysis

Evidence of student learning must be analyzed by the program; this analysis is separate from individualized grading and should involve collective evaluation of the evidence using a common standard. While the program need not have the methods in place when the plan is submitted, the process of development should be clear in the plan. In the template, please address the following issues:

1. What methods will the program use to evaluate evidence? Common tools include (but are not limited to) rubrics, defined expectations, quantitative standards, model work, etc.
2. What process will the program use to develop the tools/methods?

Evaluator Training

A significant purpose of assessment is to develop and apply collectively developed standards to student work; reliable assessment of evidence requires that the evaluators work together to articulate how they will consistently apply their analytic methods. In the template, please address the following issues:

1. How will the evaluators develop common standards and expectations?
2. How will the reliability of evaluation of evidence be insured?
3. Who will participate in the training and evaluation of evidence?

Interpretation of Results

Explain in some detail the program’s plan to interpret the analysis of the evidence. In the template, please address the following issues:

1. What does the program expect to learn?
2. How will the program involve multiple faculty members in the interpretation of results?

Report and Feedback

The annual report on assessment must be submitted to the EAC. This report should also be distributed to the program’s faculty members and used to generate improvements to the program (which might involve changes to curriculum, revisions of the outcomes, changes in assessment strategies, changes in adjunct training, and so on). In the template, please address the following issues:

1. How will the report assure connection between the analysis of evidence and its interpretation?
2. How will the report be distributed to program faculty?
3. How will the report be used to generate program improvements?

Appendix 2-D Annual Assessment Report Template

Annual Assessment Report Template

Program:	
Date:	
Contact Person:	

Outcome(s) Assessed: (include text of outcome)	
--	--

Evidence: (include # of artifacts, method of sampling, when collected and from what class/activity, and where currently stored)	
---	--

Method of Analysis: (describe methods used to analyze evidence, training of evaluators, who was involved in the analysis, and any challenges encountered; as an appendix to the report, include any tools used)	
---	--

Conclusions and Actions: (include results of analysis as an appendix to this report)	
--	--

Are the students performing at the expected levels of proficiency? How does the program interpret this finding?	
---	--

Describe what the program learned about their students with regard to each outcome assessed.	
--	--

Does the program propose any changes to its outcomes? Based on the evidence analyzed, explain why or why not.	
---	--

Does the program propose any changes to its curriculum? Based on the evidence analyzed, explain why or why not.	
---	--

Does the program propose any other changes (e.g. faculty training, resource distribution, etc.). Based on the evidence analyzed, explain why or why not.	
--	--

Does the program propose any changes to its assessment strategies or tools? Based on the evidence analyzed, explain why or why not.	
---	--

Other comments?	
-----------------	--

Previous Year: (describe how the program used the assessment results from the previous year, including a specific discussion of any proposed changes from the last report).	
---	--

Please attach to the report the program's updated assessment plan for the next 5 and 2 years, using the EAC [Assessment Plan Template](#).