

# Assessment Step-by-Step

## Step One—Writing Your Learning Objectives

### Discuss your student learning goals

Writing department or program student learning objectives brings the faculty together to talk about the values and the forms of knowledge and thought that are essential to the program's discipline or interdisciplinary territory. The discussion about student learning objectives is a discussion about what is essential to learning the habits of thought and analytical frameworks that faculty seek to impart through their teaching. It can be an eye-opener to discover the similarities and differences in the ways that members of a program faculty define what is at the heart of the discipline and define their educational goals for their students. The richness of this discussion is the first intellectual benefit of doing student learning assessment.

This discussion should not be skipped or rushed through. Given time, almost any program faculty will discover shared beliefs about the value of following their curriculum, and shared hopes about how that curriculum will students who move through it. From these shared beliefs and hopes come a set of student learning objectives—that is, a set of statements about what the faculty hope that graduates of their program will have learned and be able to do. Needless to say, none of this will happen if one person sits down in isolation to write a program's learning goals. The discussion about student learning goals may be organized by one person, but the whole program faculty should participate.

Here is one way to jumpstart a discussion about student learning goals: Give everyone five minutes to write four or five of their student learning goals for the introductory course in their discipline. Instruct people to write down what they are *really* trying to achieve, beyond the level of isolated facts and into what a general understanding of the field or topic would mean. After everyone has written these course objectives, ask the group to share them out loud and look for thematic overlap. This process works for focused interdisciplinary units, such as Freshman Inquiry teams, as well as for disciplinary ones.

After a tentative list of objectives has emerged from faculty discussion, a small team or a single faculty member might be assigned to draft a set of learning objectives. This draft can then be brought back to the full faculty for further discussion and, when appropriate, for adoption.

### Look at alignment to institutional mission

Each department's faculty is the final judge of what students in that department should learn and be able to do when they graduate. It is often a fruitful exercise, however, to look at how your draft student learning goals align to the university's vision, values, and learning goals for students. Your program objectives will not align to university-wide learning goals in a specific, one-size-fits-all way. Different programs will relate in different ways, and each program faculty is autonomous in writing its student learning goals. It is likely, however, that comparing program and institutional goals for student learning will generate new ideas about your program objectives and clarify for you the relationship between your program focus and wider curricular concerns. You will want to pay particular attention to goals that are so inherent to your discipline, department, or program that you take them for granted. Articulating these goals will help illuminate the goals of the curriculum, making the task of conducting student learning assessment all the more relevant.

### Pause, consider, and refine

Time is always a scarce commodity, but program faculty should take the time to get their student learning objectives right. Well begun is half done, as Mary Poppins tells us, and you will base the rest of your assessment activities on the objectives you write. Make sure that your objectives state what really matters, so that your assessment work will investigate learning issues that really matter.

### Lessons from the field

After you have written your program learning objectives, go around the table at a faculty meeting and have each person identify objectives about which he or she feels most confident and least confident that students completing the program can meet. This may give you ideas as to which objective to focus on in your next assessment project. You may, for instance, identify one objective that most of the faculty doubts

that your students can meet. In that case, you might decide to take a year to collect some student work samples and look at them to see if a problem really does exist, and, if it does, take a second year to design and pilot curricular changes to correct the problem.

## Step Two—Mapping Your Objectives Onto Your Curriculum

### Look for patterns and gaps in program coverage

Once you have agreed on your program learning objectives, you will probably want to map them onto your curriculum. This is an efficient way to discover whether your core curriculum actually addresses each of your objectives. Simply doing this map may help you to identify interesting questions for assessment projects.

The easiest and fastest way to map your objectives is to create a chart that includes all courses taught throughout the academic year. For courses that are taught by more than one instructor, include a row for each instructor. Then ask each instructor to fill in all the blanks for his or her classes. You can agree to simply indicate whether each program objective is addressed. You may wish, however, to develop codes that indicate the depth of coverage of each objective in more detail. People might indicate, for example, whether the program objective is (a) a central learning objective of the class, (b) not central, but still covered with a fair amount of depth, (c) only covered marginally, or (d) not covered at all.

Below is a chart showing a two-year core course sequence required of majors in the Hypothetical Studies Department.

Hypothetical Studies Courses	Objective 1	Objective 2	Objective 3
HYP ST 310 (Chen)	a	b	c
HYP ST 310 (Turner)	a	a	d
HYP ST 311 (Jones)	b	a	d
HYP ST 312 (Garcia)	c	b	c
HYP ST 450 (Dakili)	b	a	b
HYP ST 451 (Zimmer)	b	a	d
HYP ST 498 (Turabian)	a	c	c

Upon reviewing this chart, the faculty in Hypothetical Studies may question whether, for instance, Objective 3 is being covered well enough in the curriculum for majors. The faculty may decide to assess some student work samples from the 498 course to see whether there is a problem and, if so, its scope and exact nature. Faculty may realize that everyone thought that the material was being covered in someone else's course. In any case, the analysis of student work from HYP ST 498 could be the focus of one year's assessment work, with the following year devoted to making curricular changes.

### Identify critical juncture courses

As you think through which courses will provide you with the most useful assessment data, consider the following.

- Pre-requisites, core courses, and other courses occurring at identifiable critical junctures often contain the most important discipline-specific learning, and are frequently closely connected to specific program objectives.
- Courses required toward the end of a program typically reveal the nature and quality of program-long learning, and are a good place to collect post-program work samples.
- Non-required courses that consistently enjoy high levels of enrollment by majors can provide interesting insights into what students value in your curriculum and why.

Once you have located the courses that are potentially most useful for assessment, you are ready to move to Step 3.

### Lessons from the field:

Relatively simple mapping exercises often reveal previously overlooked holes in the curriculum, or bring a colleague's vague uneasiness about the curriculum out in the open. This can engender departmental

discussions about curriculum and student learning. Remember to take the time to consider what you have learned through your mapping process as you proceed toward developing your assessment plan.

## **Step Three—Developing Your Plan**

### **Focus on questions that faculty really care about**

If you have allowed for plenty of discussion and reflection in Steps One and Two, genuine questions about what your students are actually learning have probably surfaced. Those are the questions you should focus your assessment work on. Do not allow yourselves to be pulled off these questions by externally imposed ideas of what you should be assessing, or by a mechanistic impulse to assess each of your objectives in turn.

You may come up with more than one major question for assessment. If so, we strongly suggest that you consider investigating these questions one at a time. Taking two years to answer one important question well—with the first year devoted to data collection and the second to analysis and any needed curricular redesign—is preferable to collecting piles of data in one year, being overwhelmed with a huge data entry and analysis task that no one has time to do, and becoming discouraged about sustaining your assessment efforts. Sound familiar?

If you are able to, write a five-year plan. Your plan will probably change over a five-year period, but five years is a good period of time to plan for.

### **Include some analysis of actual student work samples**

The basic question that we are held accountable to in assessment of student learning is: Did our students learn what we said they would learn in our program? The surest way to answer this question is to look at what your students actually do—that is, to look at actual samples of student work. No program assessment plan is complete without this. Fortunately, it is something that can be done in any program.

Do you claim that your students learn how to write? How to sing opera? How to teach elementary school children? Then papers, concerts, or teaching are the student work samples you will want to assess. You are assessing this student work already when you grade. Often, all you need to do for program assessment is to create a system for scoring that same work on program objectives of interest, in a way that is intelligible to other people.

Using student work samples for assessment often means developing a scoring rubric. This raises the specter of scoring for ineffable qualities—a project that seems disrespectful, reductionist, and oxymoronic to some of us. On the surface, scoring for ineffables shouldn't feel like a problem to us—we do it all the time when we grade. This objection, however, hides a more fundamental objection, which is that we resent the dictate to translate our professional judgments to external audiences. As we mature in our professions and disciplines, we develop a sense of what constitutes excellence. We share that sense with colleagues in our field, and it is part of our identities to be within disciplinary communities of understanding about what constitutes high quality work. Being required to do assessment means being required to translate our processes of judgment and show them to others. Unless we are genuinely focused on questions that we ourselves actually want to know the answers to, this feels invasive and insulting to our shared departmental or programmatic sense of professional expertise. If we are really finding useful answers to interesting questions, however, then these issues regarding accountability are a sideline.

In any case, an assessment plan that does not include any direct examination of student work samples cannot make a *prima facie* argument that our students can do what we claim we teach them to do.

### **Fit the time and resources available to you**

There is little point in writing an assessment plan that you cannot accomplish. Focus on one question at a time, and give yourself time to design your assessment, collect your data, analyze your data, discuss the results, and design and implement any curricular changes that you agree on. It can easily take two years to complete one such project, given the constraints that we all face on our time. It is far better to see one project through to actual programmatic change than it is to collect a lot of data that no one knows what to do with or has the time to do anything with. As you draft your five-year plan, consider questions such as the following.

- Who will collect the data?
- How long will data collection take?
- Who will do the analysis?
- How long will the data analysis take?
- When will the faculty discuss the results?
- Who will redesign the curriculum if needed?
- When and how long will this curricular redesign take?

The Hypothetical Studies Department, for instance, requires its majors to take a two-term, 300-level course sequence. Both courses in this sequence are designed to be writing intensive. Faculty who teach the 400-level theory course, however, are not satisfied with the quality of student writing they are seeing, and suspect that the 300-level courses are not preparing the students well. A review of available records show, however, that the 300-level courses are bottlenecks and that about half of the department's majors take the 400-level course first. Do students who take the 300-level course sequence first write better in the 400-level course? Do they do better in other ways? In their most recent five-year assessment plan, this is the first student learning issue that the Hypothetical Studies Department will investigate. They are planning to base their assessment on examination of student writing samples from the 400-level course. They will design their assessment in spring term of Year 1, collect data from both of the 400-level course sections offered during Year 2, analyze that data during fall and winter of Year 3, and spend spring of Year 3 on any needed course redesign. That may seem like a long time to invest in answering one question. But it's an issue they really care about, it's a pace of work they can really manage, and they will end up with good, solid evidence of what their students can do.

## Step Four—Collecting Your Data

With a specific assessment question in hand, look back at the mapping exercise you completed in Step Two and identify the course or courses that are pivotal for investigation of the program goals you are focusing on. Often, already existing assignments or examinations can be used for assessment (that is, your assessment will be "embedded" in your course). This is an efficient approach, even if you have to modify an existing assignment a bit so it asks more directly for student work related to your program goal of interest. You may be able to write a scoring rubric that the instructors for that course would be able to use for grading; if not, then you can just save copies of the student work and re-evaluate it later according to programmatic criteria. In that case, the scoring can be done later, perhaps in early summer, or whenever the flow of faculty work allows.

Remember, any kind of student performance can serve as a work sample. This includes:

- Written Work
- Portfolios
- Presentations (individual or group, videotaped or represented by an observation sheet)
- Projects (individual or group)
- Reports
- Tests (essay or multiple choice)
- Exhibitions
- Performances
- Any other observable student work product

## Choose your methods and design

In many departments, faculty have research training that they can rely on in their assessment work. Whatever methods you choose, your central challenges will be the same—how to collect the strongest evidence possible that your students are learning what you claim that they will learn in your program. The two most powerful elements of evidence are the pre/post design and the examination of student work samples. If you do post-instructional measurements only, you will have evidence of performance but not of learning—maybe they came to you already being able to do what they can do at the end of your program. If you rely on indirect measures of learning, such as student self-report, your evidence of performance or learning is weaker.

Most assessment plans intentionally mix methods—for example, gathering student work samples of different kinds from ongoing courses, circulating surveys to solicit students' subjective impressions of their learning experience, and inviting graduates of the program to participate in focus groups to determine if they felt properly prepared for the workplace. Student self-report about learning is considered useful in assessment work, but alone it is absolutely not sufficient. A good assessment plan will include some examinations of actual student work, perhaps focused on the major question or questions raised through a survey or a mapping exercise. Working with student work samples is labor intensive, so it is best reserved for the really central questions.

If you do not have appropriate research expertise in your department, the CAE will be more than happy to help you choose methods appropriate to your assessment questions. If you do have relevant research expertise in your department, you may want to ask us to come and review your plan, anyway. We may be able to help you to avoid common assessment pitfalls, make you aware of any services we can provide to you, or to put you in touch with colleagues in other departments who are working on similar issues. In any case, we will be very interested to learn about what you are doing.

### **Collect and analyze your data**

Again, if your faculty possesses relevant research skills, you will depend on this as you collect and analyze your data. If you need support in this area, CAE staff can help you with either quantitative or qualitative data collection and analysis. Another way we can help is to design computer-based data entry and analysis systems for your assessment project. In this way, we can enable you to use the technology we all have on our desk-top computers to simplify dealing with your data and save you time.

## **Step Five—Using Your Data**

The world is full of unanalyzed data. There is no point in adding your assessment data to that list. Given time constraints, if you don't allow ample time for analysis and discussion of your data, and for design and implementation of any curricular or other changes that your data suggest, your assessment data will just lie in a drawer. This is demoralizing, frustrating, and pointless. It is not sustainable.

It can take months for a faculty to find time to get together to discuss the findings of an assessment project and to determine what they mean for the department. Faculty who have taken the lead on a particular project may wish to present the project findings at a departmental meeting, with ample time allowed for discussion. Alternatively, the results may be discussed at some length within a small group, with a summary and recommendations given to the whole department. Some departments hold a yearly retreat, and some time is reserved for discussion of assessment results.

However the discussion is structured, it is best practice to have as much discussion involving as many people as possible. In a way, discussion is the point of assessment. If you have learned something new about your students' learning, you are going to want to review your curriculum and your courses to see if there are ways to take advantage of this new knowledge. It is ideal if everyone in the department is involved in thinking this through. It's fine for one person or a group of people to take the lead on an assessment project; it is a missed opportunity, however, if only that person or group of people ever discuss the results and decide how to use them.

### **Consider curricular changes**

Up until this point, we have been talking about assessment as a process and a concern unto itself. But assessment is worth doing only in service to student learning. If your assessment efforts have been successful, you will find yourself with new knowledge about student learning in hand. This is the whole point of doing assessment in the first place.

It is likely that this new knowledge will suggest that you make changes in your program's curriculum or in specific courses. So put into practice what you have learned. Decisions about such changes, of course, are under the control of your departmental or program faculty. Faculty may feel uncomfortable with assessment, but when it comes to course or curricular design, faculty are uniquely capable and experienced. Many faculty find themselves feeling more friendly towards assessment when they see its usefulness in discussions about the educational effectiveness of their program.

Of course, it is completely possible that your assessment data could suggest that nothing needs changing. If so, your data stand as direct evidence of your program's effectiveness regarding the student

learning issue you have investigated. In that case, you can proceed directly to your next assessment project.

## **Step Six—Sharing Your Data**

### **Tell your students and graduates**

Who are your stakeholders? Faculty in the department, of course, are the most important consumers of assessment results, and will have been involved in discussions of those results already. Students have been providing you with data (and informed consent) all along, so they ought to have access to what you've learned, too. You may have had the help of department or program graduates; they, too, may be an important audience for whatever you write up. In any case, it is good practice to present your assessment results in a manner that will be accessible to the broadest possible audience, and to write it up as one would write up any other professional report of research.

### **Report to the administration**

The administration, too, is a stakeholder in assessment of your program. Your major accountability is, of course, to your dean's office. The CAE is eager to keep track of all assessment work on campus, to plan support services and to help assessment planners to make connections across departments and colleges. Finally, both the provost and the president will want to know that assessment work is proceeding well. The easiest way to be sure that all of your campus colleagues can see your assessment work is to post descriptions of your work to the OIRP assessment database (a subsection of the OIRP Departmental Profile database). Your results, along with those of other academic units, will be reviewed by your dean and by the CAE assessment staff for use in planning. They will also be used to satisfy the requirements of various professional and accrediting bodies.

### **Present or Publish**

The scholarship of assessment may or may not be highly valued in your discipline. In any case, if you have done assessment work that you think might be of wide interest, there are a number of peer reviewed journals that will provide an outlet for your work. The Center for Academic Excellence will be happy to help you find outlets for publication or presentation of your assessment work.

## **Step Seven—Sustaining Assessment**

With your last assessment project done, it is time to begin planning the next. At this point, you may wish to reflect on your accomplishments and think about where to go next. In assessment, as in most investigation, one set of answers often suggests the next set of questions. Your departmental assessment team can review your work to date, considering any new information you gained from it and whether your assessment results so far change your assessment plans for the future. You may decide, for example, that you want to supplement your work sample assessment with a survey or focus group next year to get a better understanding of what motivates student success in your program. Or you may find that an end-of-program assessment revealed unforeseen insights that you wish to explore more fully. In this case, you would adapt this assessment to focus in greater detail on areas of interest. Or perhaps you will decide to use the tools you developed this year to assess a different course or course sequence next year, providing a comparison between various points in the curriculum.

You may find it a useful exercise to review Steps One through Six of your completed assessment project. You might consider the following general questions.

- Are we satisfied with our learning objectives and our overall assessment plan?
- Are there new assessment questions we want to consider?
- What have we learned about assessment methods and the use of assessment data?
- What do we need to do to be ready to begin our next assessment project?
- What resources do we need? How can the CAE help us?

Click [here](#) for more detailed review questions about each step in the assessment cycle.