

ASSESSMENT REPORTING FOR ACADEMIC PROGRAMS: A PRACTICAL WORKBOOK

University Office of Evaluation and Educational Effectiveness
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INTRODUCTION

Over the last year, ASU faculty worked to identify program-level outcomes, measures, and performance criteria for academic programs throughout the University. It is now time to report the results of the student learning data we have collected in our academic programs. In this workbook, we will describe the steps involved in reporting the assessment results for your program.

The assessment planning work you completed last year is the most complex and time-consuming phase of program assessment. The outcomes, measures, and performance criteria you identified were the foundation for the next steps in the process. Your clearly defined outcomes and measures served as a plan for collecting the necessary data from classroom projects and exams, capstone projects, or theses and dissertations.

You may find that the reporting phase is less time consuming than the planning phase, but this phase of the assessment cycle is the most important. This is the point where faculty interpret for themselves what the assessment data mean and make decisions about how to use that information to improve student learning.

As with the assessment planning process, we will focus on the practical steps involved in assessment reporting and closing the loop. We do not mean to suggest that these activities or the abbreviated documents you will submit represent the full range of your ongoing assessment of student learning. You might think of your assessment plans and reports as an executive summary for the full range of thought and decision-making that you and your colleagues bring to the task of improving your programs over time.

This workbook will provide short descriptions of the steps necessary to complete your assessment report, accompanied by discussions of issues you might encounter.

If you are interested in background information on program assessment or more information about assessment at other universities, please visit our web site at www.asu.edu/oue/assessment.

Please keep in mind that program assessment is an ongoing process that occurs throughout the academic year and across multiple academic years. There are several stages to the process. This workbook will focus solely on the assessment reporting stage.

ASSESSMENT REPORT TEMPLATE

The 2010-11 Academic Program Assessment Report is a short form used to record summary information about assessment results for the 2009-10 academic year. We have provided a customized report form for each academic program that is currently in the reporting phase. We have also provided a customized form for each program that is still in the planning phase.

The following pages contain basic instructions for completing the form.

Page One of the Assessment Report Template

Please list the names and titles of those who participated in the assessment planning and reporting process for this program. This information will be used to document to the Higher Learning Commission that “faculty are involved in defining expected student learning outcomes and creating the strategies to determine whether those outcomes are achieved.” (Examples of Evidence, HLC Core Component 3a)

Number of degrees awarded in this program during the 2009-10 academic year. Please include degrees awarded *at any time* during the academic year.

If no degrees were awarded in this program during the 2009-10 academic year, skip pages 2 and 3 of this report. Complete the assessment plan on Page 4 and submit. If there were no degrees awarded, you only need to update the assessment plan on the last page of the form. The outcomes you reported last year will be at the top of page four. Space is provided for up to three additional outcomes, if you decide to add them.

Pages Two and Three of the Assessment Report Template

On these pages, you will provide a summary of the information you collected on the outcomes and measures for your program. We have provided the outcomes, measures, and performance criteria you previously developed.

Number of students included in data collection for this measure. Following each measure, you will be asked to report the number of students for whom you collected data. This may be a very large number if you included all your major students enrolled in a large class; it may be a smaller number if you included only a sample of those students, or it may be only one or two students if the program is a small one.

You should include only students who are program majors – not students from other programs who were enrolled in a class used for data collection. Remember that we are drawing inferences about program graduates – not all students who take a particular course.

The students included in your reporting may be program majors who did not graduate during 2009-10. You may have included a project or exam from a 300-level course as a measure for an undergraduate outcome. Although some students in that course may have been seniors who are about to graduate, it is likely that most of the students were juniors. You may have included a measure from a capstone course that consisted entirely of seniors, and some of those students did not graduate. You should not exclude those students.

If you have questions about which students should be included in your reporting, please contact us.

Sampling strategy used for this measure. This does not necessarily mean a formal sampling approach like those you might use for a research study. You may choose to use a random sampling approach, but that is not required. Please provide a short description of how you identified the students to be included. Some examples:

- All program majors in the XXX-123 (please give course number and name) capstone course
- A random sample of program majors in the XXX-456 (please give course number and name) course

- All program majors in three randomly selected sections of XXX-123 (please give course number and name)

You should avoid selecting an honors section, systematically excluding data for low-performing students, or other approaches that would not be reasonably representative of your program majors. You may have chosen another sampling strategy that you believe is appropriate for your purposes. As long as you believe your strategy includes a reasonably representative sample of your program majors, that is sufficient for assessment purposes.

Do your data indicate that this Performance Criterion was met? If your data indicate that student learning in your program met or exceeded the threshold indicated in the performance criterion, please report that the criterion was met. If your data indicate that student learning in your program did not meet the threshold, please report that the criterion was not met. You will have an opportunity to discuss possible factors that may have led to the result you had.

As you determine how to calculate the percentage of students who met your expectations, you might find it helpful to read the following excerpt from an e-mail exchange between an ASU faculty member and one of our staff members.

Faculty: My question is: Does the “75% of students” mean (a) 75% of the students completing the course or (b) 75% of all students who signed up, including those that dropped, quit coming, etc. and got a W or E? I’m assuming it should be (a).

UOEEE: Remember that we are drawing inferences about program graduates – not students who take a particular course. Yes, we’re using data that we collect from students in the course, but we use the data as evidence about what people who graduate from the program know and can do.

I would use 75% of the papers that you used for the analysis. For example, let’s say that you have 100 students enrolled in the program. 80 of them happen to take the course you’re using for assessment data in the current year. Five of them drop the course. But ... there are also 10 students in the course who are majors in another program. We now have 85 people in the course, but only 75 of them are your majors. If you chose to analyze the work of all 75 of those students, your performance criterion would refer to 75% of 75 (56 students). If you chose to analyze the work of a random sample of, say, 35 students (only the majors – not the non-majors), your performance criterion is based on 75% of 35 (26). Although we aren’t using pure statistical sampling techniques, we are using sampling for the same purpose: to support reasonable inferences about a larger population based on data from a smaller number of cases.

Many University faculty find this aspect of assessment reporting to be unsettling. Please be assured that the purpose of this question is not to tally the number of programs that did or did not meet one or more of their performance criteria. We do not compile such data, nor do we report them out to ASU administration, to ABOR, to accrediting bodies, or to any other party. The purpose of assessment is not to penalize programs that may not have met all their performance criteria or to reward those who did meet all criteria. The purpose is to provide an honest and accurate look at where we believe our students fully meet our learning expectations, where we’ve identified room for improvement, and what strategies we’ve identified to improve student learning. Please remember this:

We will not be evaluated by HLC or anyone else on how many of our performance criteria we meet. We will be evaluated on the quality of evidence that demonstrates an honest assessment of student learning accompanied by the implementation of strategies to improve learning.

Do your data indicate that graduates of the program possess the knowledge or skill identified in this outcome? If both of your performance criteria were met, your data indicate that program graduates possess the knowledge or skill of the outcome. If neither were met, your data do not indicate that graduates possess the knowledge or skill of the outcome.

If one performance criterion was met and the other was not, you will need to interpret the information available in order to determine whether graduates possess the knowledge or skill of the outcome. Consider the following scenario:

Measure 1 is supervisor evaluations from an internship experience that requires students to apply their skills in a real-world environment. The performance criterion states that 80% of students will earn an overall rating of 'Meets Expectations' or 'Exceeds Expectations' from their supervisors. Your data indicate that 85% of the students received overall ratings of 'Meets Expectations' or 'Exceeds Expectations.'

Measure 2 is an exit survey that asks how well prepared students believe they are for employment in the profession. The performance criterion states that 85% of respondents will report that they believe they are "Well Prepared" or "Very Well Prepared" for employment in the field. Eighty percent of respondents reported that they felt "Well Prepared" or "Very Well Prepared" for employment in the field.

You might believe that the internship is strongly related to the professional skills needed for entry-level positions in the field, and good supervisor evaluations indicate that the students are well-prepared for employment. If so, you might decide to assign greater weight to the evaluations than to the survey responses and conclude that the outcome was met.

Or, you might know from previous experience that the internship supervisors give high ratings to everyone, even students that you know performed poorly. In this case, you might assign greater weight to the survey responses than to the internship evaluations and conclude that the outcome was not met.

These situations require your professional judgment as faculty. There is no 'right' answer. The important thing is for program faculty to interpret the data about student learning and determine whether students have satisfactorily demonstrated the knowledge or skill of the outcome.

If "yes," use this space to discuss any components of the program that you believe contributed to this result. What does this tell you about student learning in this program? You may discuss a recent program change that you believe helped to improve student learning related to the outcome. You might decide to focus on ongoing aspects of the program that are particularly strong and should be highlighted.

If "no," use this space to discuss any components of the program that you believe contributed to this result. What does this tell you about student learning in this program? If you determined that the outcome was not met, please summarize the contributing factors. Are there foundational concepts or theories that students did not adequately apply near the end of their program? If so, at what point in the curriculum could that content have been emphasized more strongly? Was a standardized test used as one of your measures not sufficiently related to your curriculum to adequately measure your students' knowledge? Are the admissions standards for your program too lenient? Program faculty, as the experts on the curriculum, are the best suited to judge why student learning for the outcome did not meet expectations.

Please describe any programmatic changes that are planned as a result of these findings. Please include a brief rationale for those changes and the timeline for implementation. How will these changes impact student learning? If the outcome was not met, please describe your strategy for improving student learning on this outcome in the next cycle. You are not required to make changes to the program, but you should identify a strategy to improve student learning on this outcome. This might include such things as revised admissions standards, the addition of a prerequisite for an advanced course, greater emphasis on theory throughout the curriculum, or other changes. If the outcome was met, this process may have highlighted some aspect of the program that you want to change. If so, please describe that here.

Please describe any changes in your assessment processes that are planned as a result of these findings. Please include a brief rationale for those changes. How will these changes impact your ability to measure student learning? Changes to the assessment process are not required, but you may have determined that one or more of the measures used for this cycle did not adequately measure student learning related to the outcome. How will you measure student learning in the next cycle? Perhaps your review of the data indicated that a performance criterion was too high (or too low). How will you revise the performance criterion in the next cycle?

Page Four of the Assessment Report Template

Space has been provided for five outcomes, with two measures and performance criteria for each outcome. Your first two outcomes are carried forward from the previous cycle. You will be able to use those outcomes for the 2010-11 assessment cycle. The measure and performance criteria spaces are blank. It is your choice whether to use the same measures and performance criteria, or to modify those for the new cycle. You may identify up to three new outcomes, if you choose to do so. Please identify measures and performance criteria for any outcomes you add to the plan.

CLOSING THE LOOP

You have developed two program-level learning outcomes and identified measures and performance criteria for them. You have also collected student performance data, survey data, or other information about your students' knowledge and skills. The next step is the most important piece of the assessment cycle. Closing the loop refers to the use of assessment results to inform curricular decision making. How will your program change as a result of assessment information? When and how will you implement any changes? How will you evaluate the effectiveness of these changes? The ongoing process of measuring student performance and using this information to improve academic programs is a process repeated during each assessment cycle to ensure the continued improvement of student learning.

A good example of closing the loop was shared by the faculty of ASU's Physics Department. The following memo outlines certain strategies that were developed after the Physics faculty reviewed their 2009-10 assessment data. These strategies will be implemented in the 2010-11 academic year, and evaluated at the end of the academic year. The results of that evaluation will then drive their assessment activities for the 2011-12 academic year.

Dear Colleagues,

This rather long message is being provided to all current and future scheduled instructors for physics majors courses. Nonetheless, **THIS IS AN IMPORTANT MESSAGE. PLEASE REVIEW IT AND KEEP IT ON FILE.**

In conducting the first annual program assessment with respect to our new student learning outcomes (SLOs) for the B.S. and B.A. degree programs, the Undergraduate Program Committee focused on the SLOs for (1) classical mechanics and (2) thermodynamics and statistical mechanics. The attached document shows the assessment plan for the B.S. degree; the B.A. degree is similar.

Since these SLOs being reviewed are directly related to PHY 310 and PHY 441, I worked with the instructors of those courses to help them understand what materials needed to be gathered for the assessment process. Tim Newman and Banu Ozkan did a terrific job of assembling documentation for the assessment, providing a standard that will be helpful to follow in upcoming years. The department owes them a vote of thanks for their conscientious attention to this task.

The results of this first program assessment were mixed. The UPC found that students in our programs met the direct performance measure for the student learning outcome for thermodynamics and statistical mechanics. **However, our students fell somewhat short of the direct performance measure for classical mechanics.**

As a result, I have been asked to forward to all current and prospective teachers of the core physics majors courses several suggestions developed by the UPC and the Executive Committee of the Department of Physics that are believed will help improve our program performance in classical mechanics. Please review these and make suitable adjustments now and in the coming years to your courses to address these suggestions.

1. One possible cause of the shortfall in classical mechanics is the comparatively long period of time between PHY 150 and 310. During that period, unless some systematic review and/or continual refreshing is conducted, students likely forget some or much of the material related to Newtonian mechanics. This has been reflected in the relatively poor performance of students over the past two offerings of PHY 310 during the first third or so of the semester. To help address this, it is suggested that **PHY 151 and 252 instructors should take additional steps throughout those courses to include in their exercises, homework, etc. material that continues to make use of the Newtonian mechanics concepts from PHY 150.**
2. An additional suggestion related to item 1 is that PHY 252 instructors should urge and encourage students to review and work problems on their own during the summer months prior to PHY 310 to recover their skills in Newtonian mechanics. Realistically, we can expect that most students will ignore this suggestion. Even so, students should be reminded that their knowledge of Newtonian mechanics may have gotten rusty, and that PHY 310 has minimal (almost no) review of basic Newtonian mechanics material before moving into fairly challenging new material.
3. Cooperative and peer learning techniques are used often in our physics majors courses by using team exercises and labs and by encouraging students to work together on homework. These are sound pedagogical techniques provided that students are primarily tested on their individual understanding of the material. If the bulk of a student's grade is determined through group work, the grade may not reflect that student's own knowledge of the material. To improve the program performance, please ensure that the overwhelming bulk (70% or more) of a student's semester grade in PHY 150, PHY 151, PHY 201, and PHY 252 is determined by work done solely by that individual student.
4. Related to item 3, once the bulk of a student's grade is based on individual performance, the grading scales used in the introductory courses should be such that instructors can determine, earlier rather than later, those students who need to repeat courses before moving on to more challenging classes with major deficits in their abilities. During the past two offerings of PHY 310, students have noted that B and C performance in prior physics classes has not translated into an ability to be successful in the upper-division courses; roughly one-third of the students in PHY 310 during the past two offerings have earned grades of D and F. While this may simply reflect limitations in a some student's abilities, it is important for us to eliminate the possibility that grading standards or approaches in the earlier courses inadvertently permit poorly-prepared students to move into the upper division courses.

Please review these suggestions and make adjustments accordingly. Our program assessment report will need to note any changes made, so please send to Jessica any changes, however slight or major, you make in response to these suggestions. These suggestions represent relatively minor changes in most cases, but they likely will improve our program performance in classical mechanics such that we meet the performance measure next year.

Thank you for your attention to these suggestions, and thank you as well for all you every day do to enhance the quality of our undergraduate programs.

Sincerely yours,

Barry
Director, Undergraduate Programs

We encourage you to send us any other assessment documents that illustrate how you and your colleagues have closed the loop for your programs. We will add examples to our web site for use by faculty in other areas. As we find good examples from other universities, we will also add those to our web site.

SUBMITTING YOUR REPORT

Please save the report as a Word document, and use the plan code from Page One of the template as the file name. Forward the report to your college's assessment delegate for approval and submission to the SharePoint site.

FOR MORE INFORMATION

More detailed information, including more examples and links to other sources can be found on our web site at: <http://asu.edu/oue/assessment>

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Staff members are available to meet with department chairs, curriculum or assessment committees, or individual faculty to provide additional training or support with your assessment activities.

A .pdf copy of this workbook can be downloaded from the web address shown above. Your faculty may choose to complete this exercise independently, or we can arrange to facilitate a workshop for them.

