Assembling Assessment Information into Portfolios

Some Valuable Ideas You'll Find in This Chapter

- Portfolios should have a clear educational purpose as well as a clear assessment purpose.
- Student reflection is an essential component of a portfolio.
- Portfolios are an especially good assessment choice for programs with small numbers of students and self-designed majors.
- Portfolios can take a great deal of time and thus call for careful planning and gradual implementation.

Portfolios may be the most exciting and the most challenging assessment tool that we have. They can be valuable learning opportunities and assessment tools, but they can also take a great deal of time to manage and evaluate. This chapter explains what portfolios are and when and how to use them most effectively.

What Is a Portfolio?

You may remember keeping a folder of your work in one or more of your grade school classes. What are the differences between that folder and portfolios as they are used today?
Clear educational purpose. While many folders simply serve as repositories for student work, portfolios have clear educational purposes and help students learn. Many portfolios are used to assess what students have learned and to identify ways to improve student learning. But these should not be the sole purposes of a portfolio; there are simpler tools, discussed in other chapters, that can assess student learning and provide feedback more quickly and easily.

Student participation in selecting contents using faculty selection criteria. While the contents of folders are specified by the teacher and often include everything students do in a particular class, students participate in choosing what goes in their portfolios, using selection criteria provided by faculty and staff. Students might be asked, for example, to choose and include four assignments: one that best shows their research skills, one that best shows their writing skills, one that best shows their ability to use a particular concept to solve a problem, and one from which they feel they learned the most.

Evaluation criteria. While folders may not be evaluated systematically, portfolios are assessed using evaluation criteria developed by faculty and staff, often in the form of a scoring guide or rubric (Chapter Nine).

Illustration of growth. While folders are often composed only of final products, portfolios can illustrate growth, either by including student work from the beginning as well as the end of a course or program or by including documentation of the process students went through in producing their work, such as notes, drafts, or work logs.

Continual updating. While students add to folders but don’t refine them, they can continually update portfolios, substituting one assignment for another. As students’ writing skills evolve, for example, students may substitute a different assignment for the one they think best shows their writing skills.

Student reflection. While folders often do not represent a substantive learning opportunity, portfolios include written student reflections on the significance and contribution of each item in the portfolio (Zubizarreta, 2004). In this way, portfolios help students develop skill in synthesizing what they have learned and in metacognition: the ability to learn how to learn by reflecting on what and how they have learned (Chapter Eight).
When Are Portfolios Most Effective and Useful?

Faculty and staff can use portfolios to document and evaluate student learning within a course, across multiple courses, throughout an entire academic program, and within another learning opportunity such as a service-learning experience. Table 13.1 summarizes the main reasons to use portfolios.

Portfolios can be used in virtually any learning experience, but they are particularly appropriate in courses and programs with the following characteristics:

Courses and programs that focus on developing thinking skills. The papers and projects typically included in portfolios provide strong evidence of thinking skills such as writing, analysis, and evaluation but do not paint a comprehensive picture of students’ knowledge. If your goals are largely to develop broad, comprehensive conceptual understanding (say, to understand the principal figures and events affecting East Asian history), traditional tests (Chapter Eleven) will help you assess those goals more effectively than portfolios.

Courses and programs that focus especially on developing synthesis and metacognition skills. The self-reflection element of portfolios makes them ideal for developing these skills.

Courses and programs with small numbers of students. When only a handful of students graduate each year, assessment measures such as tests, surveys, and capstone projects may not be very useful, because changes and differences in results may be due more to fluctuations in student characteristics than to changes in teaching and learning processes. Portfolios are a better choice in

<table>
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<tr>
<th>Table 13.1. Why Use Portfolios?</th>
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<tr>
<td><strong>A portfolio is compelling evidence of what a student has learned.</strong></td>
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<tr>
<td>It assembles in one place evidence of many different kinds of learning and skills.</td>
</tr>
<tr>
<td>It encourages students, faculty, and staff to examine student learning holistically—seeing how learning comes together—rather than through compartmentalized skills and knowledge.</td>
</tr>
<tr>
<td>It shows not only the outcome of a course or program but also how the student has grown as a learner. It’s thus a richer record than test scores, rubrics, and grades alone.</td>
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| **A portfolio is valuable to students, faculty, and staff.** |
| It encourages students to become actively involved in their learning by thinking about and choosing how to document achievement of goals. |
| It encourages student reflection (Chapter Twelve), which develops skill in synthesis and metacognition (Chapter Eight). |
| It encourages diversity rather than conformity in student learning activities. |
| It provides fodder for rich conversations among students, faculty, and staff. |
| By giving information not only on what students have learned but also how they have learned, portfolios help faculty and staff refine what and how they teach. |
these situations because they give a more thorough picture of student growth and development.

**Self-designed programs.** Students pursuing self-designed programs of study (Chapter Seven) typically have unique learning goals and unique collections of assessment evidence. Portfolios are an ideal way to document student learning of one-of-a-kind sets of goals.

**Is a Portfolio Appropriate and Feasible for Your Course or Program?**

A great deal of thought, time, and effort precede successful portfolio implementation. The biggest problems are time and logistics. Portfolios can take a great deal of time, both for students to compile and for faculty and staff to monitor and assess, so they pose a challenge in large classes and programs. Storing portfolios securely yet accessibly can be another challenge. Electronic portfolios, discussed later in this chapter, solve the storage problem but not the time problem.

The questions in Table 13.2 can help you decide whether a portfolio might be an appropriate element of your assessment program. The balance of this chapter discusses some of these questions in more detail.

**Table 13.2. Considering a Portfolio? Questions to Ask Before You Decide**

*What are the goals of the portfolio?* Why are you having students create portfolios? What learning goals should the portfolio demonstrate? What important things will students learn from the process of compiling the portfolio?

*Who are the portfolio’s audiences:* students, faculty, administrators, employers, accreditors, or some other group? What questions does each audience group want answered by the portfolios? What decisions do they need to make?

*How and when will students choose what to put in the portfolio?* What kinds of student work will answer audience questions? If the portfolio covers an entire academic program, do all students in the program, regardless of the program options they choose, complete these kinds of assignments?

*How will student and faculty reflection be ensured* in the portfolio process?

*How will the portfolios be evaluated?* What will be your evaluation criteria? Will the portfolios be graded? If not, what incentives (Chapter Two) will you provide to ensure that students put good effort into assembling and reflecting on their portfolios?

*Who will review and evaluate the portfolios?* When?

*How will the portfolio compilation and evaluation process be kept manageable?* How and where will portfolios be stored?

*Who “owns” each portfolio?* What happens to each portfolio when the student completes the course, graduates, or leaves the program before graduating?

*What are the benefits* of moving toward portfolio assessment?

*What are the areas of concern?* Are portfolios a feasible practice in your situation?
Table 13.3. Contents of Typical Portfolios

A table of contents, perhaps a checklist of potential items (Exhibit 13.2)
Examples of student work, which may include, depending on the portfolio's goals:
- Papers and other assignments (see Table 10.1)
- Peer assessments
- Attitude and interest surveys
- Tests or logs of test scores
- Statements of students' goals for their learning and development
- Notes from faculty, staff, and supervisors from observations, conferences, and interviews
- Internship supervisor evaluations

Evidence of learning processes, growth, and improvement such as:
- Work completed early in the course or program (Note that this material may not be available for students who transfer into a program after completing early course work elsewhere.)
- Drafts
- Work logs

A reflection page, in which students reflect on the overall contents of the completed portfolio

Faculty's evaluative summary of the portfolio, perhaps in the form of a completed rubric

An introductory statement, if you choose to have the student write one, that will help those evaluating the portfolio understand it better. Students might state, for example, why they enrolled in this course or program, their learning goals, their background before enrolling, their strengths and weaknesses, or their career or life goals.

Reflections on each item in the portfolio. Exhibit 13.3 is an example.

Faculty comments on or evaluation of each item in the portfolio. Because of the volume of materials, the rubric or comments may be very brief and simple.

What Can Go into a Portfolio?

Table 13.3 suggests items that might be included in portfolios. While students should choose at least some items for their portfolios, faculty and staff may specify some items, and some may be chosen collaboratively by the student and faculty.

What Guidelines Should Students Receive on Assembling Portfolios?

Because preparing a portfolio may be a new experience for some students, it is important to give clear written guidelines that explain the assignment. Guidelines should answer the questions in Table 13.4.

If students are developing a program portfolio, give them written guidelines as soon as they enter the program. Review the guidelines with them to emphasize the importance of the portfolio and answer any questions they might have. The guidelines should
Table 13.4. Questions to Address in Portfolio Guidelines to Students

What are faculty and staff goals for the portfolio? What will students learn by compiling it, beyond what they will learn by completing each individual item?
What will be included in the portfolio? Which items are mandatory, and which do the students choose? When will the choices be made?
When are key deadlines? When do students review and update their portfolios?
How will the portfolio be stored? When and how can students access it? What will happen to it at the end of the course or program or if students leave before the end?
How and when will faculty and staff evaluate each item and the overall portfolio?

provide periodic points at which students update their portfolios and review them with a faculty or staff member. Because portfolios may identify the need for additional study in a particular area, the need to develop further a particular skill, or an interest in further study of a particular topic, these reviews can help students plan their studies. Students with inadequate portfolios should have time to make them acceptable without delaying their graduation.

Exhibit 13.1 is an example of an assignment for a course portfolio. Exhibit 13.2 is the checklist that accompanies this assignment, and Exhibit 13.3 is a reflection sheet for individual items in the portfolio.

How Might Students Reflect on Their Portfolios?

One of the defining characteristics of portfolios is the opportunity for students to learn by reflecting holistically on their work. Students can be asked for brief reflections on each item in their portfolio (Exhibit 13.3), a longer reflective essay on the portfolio as a whole, or both. Questions they might reflect on include:

- Which item is your best work? Why?
- Which item is your most important work? Why?
- Which item is your most satisfying work? Why?
- Which item is your most unsatisfying work? Why?
- In which item did you stretch yourself the most, taking the greatest risk in what you tried to do?
- List three things you learned by completing this portfolio.
- What does this portfolio say about you as an emerging professional or scholar in this discipline?
- What are your goals for continuing to learn about this discipline?
Exhibit 13.1. A Portfolio Assignment for a Graduate Course on Assessment Methods

Develop a portfolio of assessment tools that you can use in your classes. My goals for this assignment are for you:

- To become familiar with a broad variety of assessment tools
- To create types of assessment tools that you are not now using
- To create assessment tools that are better quality (more valid) than the tools you are now using
- To create assessment tools that assess thinking skills

Selection Guidelines

Include at least eight items in your portfolio, choosing from the list on the "Portfolio Table of Contents" (Exhibit 13.2). Your portfolio must also include the table of contents, a cover sheet for each portfolio item (Exhibit 13.3), and a completed "Reflections on the Course" form, provided separately.

Other Guidelines

- Your portfolio items should be in the order shown on the table of contents, with cover sheets preceding each assessment tool.
- Your portfolio items need not all be tied to the same class topic. You can write a test blueprint for one topic, for example, and a rubric for another.
- You are welcome to submit more than the minimum number of items. Don't expect to include an example of every kind of assessment tool, however, as some may not be appropriate for what you teach.
- The items you submit in your portfolio need not be your “best” work, but they should represent a serious effort to create something you can use in the classes you teach.

Evaluation Criteria

Each item submitted—and the portfolio as a whole—will be evaluated using the following standards.

- Outstanding: Meets “good” standards and, in addition, shows extra effort, insight, or creativity
- Good: Reflects concepts and guidelines taught in class; shows serious effort, particularly at stretching—using new assessment methods—and at assessing thinking skills
- Needs Improvement: Fails to meet “good” standard in at least one respect

Table 12.1 has more examples of questions to stimulate self-reflection. To keep things manageable and encourage students to refine their thinking, limit the number of questions you pose, and stipulate a maximum length for each response. Many reflection questions can be answered effectively in a single sentence.
Exhibit 13.2. A Portfolio Table of Contents Checklist from a Graduate Course on Assessment Methods

Check each item that you are including in your portfolio.

☐ This table of contents (required)
☐ A list of ten learning goals, including at least six for thinking skills
☐ A checklist rubric
☐ A rating scale rubric
☐ A descriptive rubric
☐ A holistic scoring guide
☐ A prompt for an assignment
☐ A prompt for self-reflection
☐ A prompt for a portfolio
☐ A test blueprint
☐ Six multiple-choice items
☐ A set of matching items
☐ One interpretive exercise with at least three items
☐ A prompt for a journal
☐ A reflection sheet for each item in the portfolio (required)
☐ The completed "Reflections on the Course" form (required)

Evaluating Portfolios

Your intent for a portfolio assignment should determine how you will evaluate the completed portfolios. Here are four examples:

Assessing student progress in achieving major course or program learning goals. Use a rubric (Chapter Nine) that lists those learning goals and provides criteria for acceptable performance. Exhibit 13.4 is an example of a simple rating scale rubric for assessing program portfolios, and Exhibit 13.1 includes a simple holistic scoring guide for assessing course portfolios. If faculty and staff are collectively reviewing portfolios, use the rubric to score a few portfolios, compare your scores, and discuss and resolve any differences before launching a full-scale review.

Encouraging metacognition. Evaluate the portfolios in terms of the effort students put into self-reflection that helps them learn how to learn (Chapter Eight).
Exhibit 13.3. A Reflection Sheet for Individual Portfolio Items from a Graduate Course on Assessment Methods

1. What type of assessment tool is this?

2. In what course or unit will you use this assessment tool?

3. What learning goals does this tool assess?

4. Why did you choose this item for your portfolio?

5. What does this item show me about you as a teacher?

6. What did you learn by creating this item?

7. Do you have any questions about this item?

My comments to you:
### Exhibit 13.4. A Rubric for Assessing Portfolios of Business Administration Majors

<table>
<thead>
<tr>
<th>Learning Goal</th>
<th>Outstanding</th>
<th>Satisfactory</th>
<th>Inadequate</th>
<th>Insufficient Information to Evaluate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Write articulate, persuasive, and grammatically correct business materials.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Use critical, flexible, and creative thinking to generate sound conclusions, ideas, and solutions to problems.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. Use software and networking services to obtain, manage, and share information.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Apply understanding of domestic and international diversity concepts and issues to business situations.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Recognize ethical challenges and reach ethical business decisions.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tbody>
</table>

**Encouraging students to improve their performance.** Have students include drafts and early work in their portfolios, and evaluate the portfolios in terms of improvement from beginning to final products.

**Encouraging risk taking and creativity.** Evaluate the portfolios in terms of reflections that students provide on the risks they took in their work.

**Keeping Things Manageable**

Imagine a class or program with twenty-five students, each of whom submits a portfolio with ten work examples (plus reflections on each). That’s 250 items (plus reflections) to be reviewed—a daunting task. How can you keep the work of creating, managing, and evaluating portfolios from overwhelming both students and faculty?
Chapters Five through Seven offer many suggestions for keeping the assessment burden manageable. Here are some additional ideas:

- Limit the number of items in each portfolio.
- Keep portfolio items short (no more than a few pages each). Consider including only excerpts from lengthier items.
- Start small. Perhaps ask for only one or two items the first time you use portfolios, and then gradually increase the contents for subsequent cohorts of students.
- For program portfolios, ask the faculty member making each assignment to attach a rubric showing his or her evaluation of it. This saves the labor of a second review.
- For program portfolios in programs with many majors, consider reviewing only a sample of portfolios each year (assuming that students have already received feedback on individual items in their portfolios).

Electronic Portfolios

Electronic or digital portfolios, in which students store their work electronically on a secure Web site or shared server, are far easier to store and access than paper portfolios, and unlike paper portfolios they can easily include multimedia projects such as videos, slide shows, and Web sites. John Zubizarreta (2004) has compiled extensive lists on the advantages and disadvantages of electronic portfolios.

A number of commercial software packages support electronic portfolios. Their features and capabilities vary, so before you choose one, have a clear sense of the kinds of student work that will go into your portfolios and how the portfolios will be accessed and used. Table 6.2 offers some questions to consider when you're evaluating assessment technologies.

If you are interested in learning more about electronic portfolios, attend an assessment conference, speak to colleagues who use electronic portfolios, or do an online search for “electronic portfolios,” “e-portfolios,” and “digital portfolios.”

Time to Think, Discuss, and Practice

1. Do you have any experience with portfolios as a teacher or as a student?

- If you do, share what you learned from the experience.
  What was the best part of the experience? What was the
least satisfying aspect? If you had the opportunity, what
would you improve about the experience?

- If you haven’t had any experience with portfolios, share
what excites you about portfolios and what makes you
skeptical about them.

2. Identify someone in your group teaching a course that
doesn’t now use a portfolio but for which a portfolio might
be a worthwhile learning experience. Help that group mem-
ber answer the following questions:

- What should be the learning goals of the portfolio? What
should students learn through the process of assembling
and reflecting on their portfolios?

- What should the portfolio include? (Remember to keep
the portfolios small enough to be manageable)

- What might be the criteria for evaluating each completed
portfolio?

Recommended Readings

The following readings are recommended along with the references
cited in this chapter.


Understanding and using assessment to improve student learning. San Francisco:

Electronic portfolios: Emerging practices in student, faculty, and institutional

2.0: Emergent findings and shared questions. Sterling, VA: Stylus.

J. F. Bauer, & B. W. Speck (Eds.), Assessment strategies for the on-line class:
From theory to practice (pp. 69–75). New Directions for Teaching and
Learning, no. 91. San Francisco: Jossey-Bass.

Hutchings, P. (Ed.). (1998). The course portfolio: How faculty can examine their teach-
ing to advance practice and improve student learning. Sterling, VA: Stylus.