Student portfolios have been widely known and implemented for some time in academic fields such as writing and business. Similarly, portfolios have been a staple form of documentation of performance skills in the fine arts, providing students and teachers with a method for displaying and judging evidence of best practice and samples of the full range of talent. Another popular application has been to provide a device for demonstrating the value of experiential learning or for assessing credit for prior learning. Some portfolios are shared by students and faculty advisors for the purpose of academic advising and career counseling. Also, the National Council for Accreditation of Teacher Education (NCATE) advocates the portfolio model as an effective tool for showcasing a representative breadth of acquired skills for professional success and career preparation. NCATE uses specified licensure competencies and professional standards as benchmarks against which to measure achievements signified by portfolio artifacts.

Despite the history of portfolios in certain disciplines, the portfolio approach to gauging student accomplishments and growth in learning was not adopted extensively in higher education until recently. Instead, emphasis on advanced content knowledge acquisition and traditional forms of assessment and evaluation prevailed. In English and a few other disciplines, portfolios and journals have long been employed in college classes with some regularity. But recently — following the groundswell of interest in teaching, course, and institutional portfolios — learning portfolios began to attract significant attention in college and university settings. Now, the numerous Web sites that exist for online information on portfolios, offering rich and diverse models of how portfolios are used worldwide for multiple purposes, are coming predominantly from colleges and universities around the world. Countries such as Australia, Britain, The Netherlands, New Zealand, Canada, France, Finland, Hong Kong, Mexico, Singapore, and, of course, the United States — just to name a few — are home to institutions with student portfolio programs designed to help with systematic, learning-outcomes assessment plans. Though it took time, learning portfolios have clearly become mainstream in higher education.

A Learning Portfolio Model
Recognizing that student portfolios take many forms, depending on purpose and individual or programmatic design, Figure 1 proposes a simple model for the learning portfolio, predicated on three fundamental components:

1) Reflection
2) Documentation
3) Collaboration

Any combination of two components ensures a deeper learning experience, but when students activate all three components in a portfolio project, the potential for enhanced learning is most stimulated. The result is a compact, strategically organized document that evolves qualitatively as a reflective process to represent the dynamic nature of engaged learning.

The strategic organization and selectivity of a portfolio are important dimensions of the model. A sound learning portfolio involves a concise, reflective narrative, plus selected evidence in a series of appropriate appendices. Such an approach parallels successful models for professional teaching (Seldin, 2004; Zubizarreta, 1997), course (Zubizarreta, 1995), and administrative (Seldin & Higgerson, 2002) portfolios.

The role of the collaborative mentor (a teacher, an advisor, or a peer) is to help the writer keep the portfolio manageable, current, accurate, organized, and relevant.
to the purpose. As new materials are added, old ones are removed, keeping the act of revision active and critical, and continually informing the learning process.

**Documentation and Evidence**
What is often left out of the formula in student portfolios — though the trend is rapidly changing — is an intentional, primary focus not on skills development, but on the learning piece. This learning focus entails the deliberate and systematic attention to a student’s self-reflective, meta-cognitive appraisal of what was learned, how it was learned, when it was learned best, and, more importantly, why this learning is valuable. Such meta-cognition — that is, thinking about thinking, learning about learning, focusing on the process of learning as an enriching complement to content knowledge and skills as products of education — is central to how and why portfolios deepen learning.

This is not to assert, of course, that learning does not happen when portfolios are used only as collection and organizing devices. A student does benefit simply from the thoughtful act of choosing representative samples of accomplished work (documentation and evidence) and making sense of the materials as a display. Any effort to organize one’s learning experiences is a step in the right direction, moving students away from merely completing courses, recording grades, and checking off boxes on curriculum plans, and toward a more mindful understanding of the integration and potential of their learning over time. However, more enriched learning is likely to occur if the student is encouraged to come to terms self-consciously with the sources, coherence, and worth of learning. While the model of the student portfolio as simply an individual repository of selected artifacts is useful, reflection and collaboration are central to reaping the full advantages of learning portfolios.

**The Importance of Reflection**
Most commonly, student portfolios have been used to collect and evaluate students’ work at key points in their progress, usually at the end of an academic endeavor. Campbell, Melenyzer, Nettles, and Wyman (2000) make the strong point that in a well-managed portfolio, students should realize that their effort is not simply to construct “a scrapbook of college course assignments and memorabilia.” Instead, a learning portfolio should stress that the product is also a process, an “organized documentation of growth and achievement that provides tangible evidence of the attainment of professional knowledge, skills, and dispositions. Each portfolio is goal-driven, original, and reflective.” The intrinsic merit of learning portfolios is that they involve students in the power of reflection, the critically challenging act of thinking about their learning, and constructing (and communicating) a sense of the learning experience as a coherent, unified, developmental process. Such thinking and sharing are the linchpins of lifelong, active learning. These processes help students discover, understand, and communicate what, how, when, and why they learn.

Hence, the value of portfolios in improving student learning resides in engaging students not just in collecting representative samples of their work for assessment, evaluation, or career preparation, but in addressing vital reflective questions that invite systematic inquiry:

- What have I learned? Why did I learn?
- When have I learned? In what circumstances? Under what conditions?
- How have I learned or not, and do I know what kind of learner I am?
- How does what I have learned fit into a full, continual plan for learning?
- What difference has learning made in my intellectual, personal, and ethical development?
- Where, when, and how have I engaged in integrative learning? Has my learning been connected and coherent?
- Is my learning relevant, applicable, practical?
- When, how, and why has my learning surprised me?
- What have been the proudest highlights of my learning? The disappointments?
- In what ways has my learning been valuable?
- What difference has portfolio mentoring made in my learning?

Obviously, many more questions come to mind as one begins to fashion a strategy for reflection. The underlying message, however, is that the learning portfolio is an opportunity for developing the reflective judgment (King & Kitchener, 1994) and higher-order or significant learning (Bloom, 1956; Fink, 2003) that we, as educators, desire in students of all abilities.

**The Role of Collaboration/Mentoring**
Meaningful reflection is facilitated best not by leaving students to their own devices in thinking about their learning, but by utilizing the advantages of collaboration and mentoring in making learning community property. Learning is enhanced by recognizing its relational values, by helping students connect individual pieces of gained knowledge to a larger puzzle of learning with ever-widening intellectual, material, ethical, social, and even spiritual implications. In other words, dissemination of facts and delivery of knowledge are acts of instruction that serve an important but limited purpose in how we think and learn. But connections, including those between mentor and student, are indispensable to significant learning.

Identifying portfolio mentors, however, can be a significant hurdle. Should the coach be the teacher in a course? Should trained students be enlisted as peer mentors? Can professional or faculty advisors serve as guides? Can students developing electronic portfolios turn to technology staff for mentoring resources? Are there ways to use interactive technology tools to provide virtual opportunities for collaboration? The questions are many, but the answer is “yes” to each. Context, resources, purpose, and other factors all play a role in helping us figure out ways to connect students with knowledgeable,
effective mentors who can assist them in cultivating substantive reflective judgment and the analytical skills needed to develop a purposeful, selective portfolio.

What Is a Learning Portfolio?
So what exactly is a learning portfolio? No single, right answer exists. A powerful complement to traditional measures of student achievement, learning portfolios engage students not only in collecting selected samples of their work for assessment, evaluation, and career development, but also in continuous, collaborative reflection about the process of learning. But such portfolio work can take a variety of forms. The flexibility of portfolio development is actually one of the strengths of the process. The portfolio is adaptable to many different purposes and the product can be on paper, on CD/DVD, on video/audio tape, on the web, or in some other creative combination of such mediums.

The learning portfolio, then, is a flexible tool that engages students in a process of continuous reflection and collaboration focused on selective evidence of learning. As written text, electronic display, or other creative project, the portfolio captures the scope, richness, and relevance of students’ intellectual development and academic skills. The portfolio provides a critical opportunity for purposeful, mentored reflections and analysis of evidence for both improvement and assessment of students’ learning. Such a process is a rich, convincing, and adaptable method of recording intellectual growth and involving students in a critically reflective, collaborative process that augments learning as a community endeavor.

If we can motivate students to focus on the process of their learning and not just on chalking up grades and credentials, they will find portfolio development challenging and rewarding. The payoff for students will come when they recognize that reflecting on and documenting their progress as learners reinforce the foundational elements of significant learning. The process teaches them to value formative feedback and to respond positively to incentives for progress. The portfolio, in effect, can help students transform gaps in learning into potential opportunities for improvement.

Because the portfolio emphasizes reflection, collaboration, and purposeful selection and integration of evidence of learning, it results in significant and lasting educational experiences. Portfolios can be tailored to suit many disciplinary, pedagogical, programmatic, and institutional needs — a flexibility that helps account for the continually growing use of portfolios worldwide for many different purposes in the academy. Indeed, the overwhelming number of online resources and models now available on the popular “electronic portfolio”— the digitized approach to portfolio development — can consume anyone who searches for such information on the Internet.

Portfolios now are deeply ingrained in higher education as a powerful strategy for improving and assessing student learning. They are notably useful in augmenting the kind of “higher-level,” “deep,” “reflective,” or “significant” learning identified by educational theorists from Dewey (1910) to Perry (1970), Piaget (1971), Schön (1983), Kolb (1984), King and Kitchener (1994), and Fink (2003).

The Purpose and Contents of a Learning Portfolio
What are the contents of a learning portfolio? Again, no answer can be exclusively right or complete. Portfolios vary in purpose, and different purposes determine the diverse contents. Consider, for example, how a portfolio developed for a single course or for a field-based, experiential learning venture might differ in goals, themes, documentation, and reflective content from a portfolio constructed initially in a first-year, orientation course and later completed in a capstone senior seminar as part of a programmatic assessment plan. Some portfolios might focus exclusively on improvement, and some might be used primarily for formative assessment or summative evaluation, changing the character and content of the endeavor. A portfolio used to document prior learning for admission to an adult education program will stress mastery of content and skills, and it will include information about competencies and experiences that might be quite different from a showcase portfolio developed for an academic award.

Later in this paper, Figure 3 provides more examples of how portfolios may differ in themes and documentation, depending on purpose. Remember, however, that flexibility and adaptability are among the portfolio’s keen strengths. Also, keep in mind that the medium of the portfolio — that is, whether the portfolio is on paper, on a portable disk, or on the web — will also have a bearing on composition; on access and ownership issues; and on decisions concerning how many artifacts, what kinds of evidence, and how reflection should be integrated into the portfolio.

Generally, the learning portfolio consists of a carefully reasoned, reflective narrative that, depending on purpose, captures the scope, progress, and value of learning. The reflection is complemented by an equally representative compilation of concrete evidence. A popular alternative is a number of short reflections on separate or grouped items of evidence. Much can be said, though, for the coherence and unity of reflective analysis required by a single reflective statement and overview with keyed references to documentation in an appendix. Some portfolios mix the approaches, offering individual, brief reflections for units of organized materials that demonstrate growth in particular areas of learning (perhaps correlated with stated learning goals and objectives of a course or a program), while also including a longer, thoughtful, critical analysis of learning over time. The latter usually consists of a more developed reflective narrative that is not only retrospective but also forward-looking, with goals for future improvement and application of learning.
Crafting a Learning Portfolio Project

As a starting point for crafting a portfolio project, Figure 2 offers an exercise that prompts careful thinking about the three essential activities in portfolio development (Zubizarreta, 2004). Consider how reflection will be incorporated into a portfolio, how much and what kinds of evidence should support the portfolio (documentation), and who will provide the mentoring and collaboration so crucial to guiding substantive reflection and judicious, honest display and analysis of learning outcomes.

Figure 2 • Crafting a Learning Portfolio Project.

<table>
<thead>
<tr>
<th>Relection</th>
<th>Documentation/Evidence</th>
<th>Collaboration/Mentoring</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

In designing a portfolio project and filling in the blank columns, keep in mind the importance of selectivity in the compilation of outcomes or products that comprise the appendix items supporting the reflective narrative portion(s) of the portfolio. Selectivity is best defined as representative rather than as culled, though in a showcase portfolio — used most often for job preparation, graduate school application, or similar professional purposes — the materials chosen as documentation naturally would reflect best practice. Again, purpose is a central consideration in determining the themes and evidence of a portfolio. Still, any portfolio gains a degree of credibility and is not necessarily handicapped by inclusion of artifacts that reveal the author’s reflective awareness of weaknesses in academic areas or particular work applications that require improvement. In fact, a portfolio is an ideal venue for demonstrating revision and growth over time, effective responses to formative feedback, and recognition of the steps necessary to strengthen learning and actual performance in the future.

Figure 3 (see next page) helps in mapping a portfolio’s purpose, themes, and evidence (Zubizarreta, 2004). The concrete evidence of learning is collected selectively in an appendix, with the materials meeting the specific purposes of the portfolio. The representation of student

Table of Contents

Below is a generic table of contents, organized by broad categories and certainly not prescriptive or exhaustive. The table is meant to be suggestive, inviting multidisciplinary ideas of what the actual, complex contents of a student portfolio might be. The sound portfolio will not necessarily follow the table exactly as written, but it will undoubtedly include reflections and appropriate evidence that address the categories. Remember the caveat that purpose will drive final decisions about both reflection and documentation.

1. Philosophy of Learning (reflective narrative[s] on learning process, learning style, value of learning). What, how, when, and why did I learn?

2. Achievements in Learning (records: transcripts, course descriptions, résumés, honors, awards, internships, tutoring). What have I accomplished with my learning?

3. Evidence of Learning (outcomes: research papers, critical essays, field experience logs, creative displays/performances, data/spreadsheet analyses, course listserve entries, lab results). What products, outcomes do I have to demonstrate learning?

4. Assessment of Learning (instructor feedback, course test scores, exit/board exams, lab/data reviews, research project appraisals, practicum reports). What measures and accounting do I have of my learning?

5. Relevance of Learning (practical applications, leadership, relation of learning to personal and professional domains, ethical/moral growth, affiliations, hobbies, volunteer work, affective value of learning). What difference has learning made in my life?

6. Learning Goals (response to feedback; plans to enhance, connect, and apply learning; career ambitions). What plans do I have to continue learning?

7. Appendices (selected documentation). How coherently have I integrated evidence with reflections and self-assessments in the portfolio?

Note that the categories reflect a logical pattern, one that essentially mirrors sound practice for both improvement and assessment. The flow parallels the order of reflective analysis of the questions following each category, complemented by documentation in the appendix.

A brief reflective section of a few pages, plus a mindful, organized selection of integrated evidence of authentic learning, is a practical investment. The student benefits from the portfolio’s efficacy in bolstering learning while at the same time creating a compelling showcase product for a job search, graduate application, or other utilitarian purpose. The teacher, too, gains a multi-faceted means of appreciating, understanding, and assessing a student’s learning, using a model of “authentic” and “educative” assessment as described by Allen (2004), Suskie (2004), Wiggins (1998), and others. Also, programs and institutions have at their disposal a visible sign of learning over time for assessment, evaluation, or accreditation needs.
work, or products, in the appendix is linked to the reflective component of the learning portfolio, and it is driven by purpose and an understanding of the portfolio’s intended audience. For example, the following table suggests some representative ways in which the purpose of a learning portfolio strongly determines the themes of the reflective narrative, as well as the types of documentation or evidence selected in the appendices.

The items shown in the table are not prescriptive or exhaustive, but they help to underscore how the purpose of a portfolio drives its themes, which are supported by the evidence or outcomes of learning assembled selectively in the portfolio. Completing a similar table would be a productive exercise to add to the one in Figure 2 for crafting a learning portfolio project. In the process, and preferably in a collaborative setting for generating creative ideas and models, think about how to design a portfolio that would help capture the complexity, individuality, and value of student learning. What is the purpose driving the portfolio project? What are the salient, recurring, integrative themes of the portfolio? And what selective cache of outcomes or documentation provides the vital evidence that undergirds the portfolio’s critical reflections?

Always keep in mind that while collection, selection, organization, and synthesis of artifacts constitute a valuable effort, students derive even more benefits from the power of reflection and collaboration in helping them to reach higher levels of meta-cognitive achievement. Hence, a portfolio should not simply include end products of exemplary work, but rather evidence of growth over time and demonstrations of motivation to improve learning, recognize areas of development, and reflect on learning as a lifelong process.

**Conclusion**

The learning portfolio is a concept that is strongly suited to enhancing learning. It challenges teachers, academic leaders, and students to:

- Examine their disciplinary-based focus on content knowledge acquisition and traditional assessment and evaluation practices without exploring the role of reflective inquiry in promoting and extending significant learning.
- Collect selective evidence of higher-level learning over time.
- Adopt authentic, educative assessment strategies over simpler auditive assessment practices.
- Engage in the benefits of mentoring and collaboration in the spirit of a genuine community of learners.

Because the portfolio, by definition, encourages the learner to gather information about learning from multiple sources, including critical reflection and self-assessment, it engages students in intellectually challenging, creative, rigorous work. It is both process and document, stimulating reflection, collaborative mentoring, and emphasis on

**Figure 3 • Determining the Portfolio’s Purpose, Themes, and Evidence.**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Themes</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement</td>
<td>Development, reflective inquiry,</td>
<td>Drafts, journals, online threaded discussion,</td>
</tr>
<tr>
<td></td>
<td>focus on goals, philosophy of</td>
<td>emails, statement of goals, classroom</td>
</tr>
<tr>
<td></td>
<td>learning.</td>
<td>assessments, research notes.</td>
</tr>
<tr>
<td>Job Search</td>
<td>Career preparation, versatile skills,</td>
<td>Showcase projects, writing and communication</td>
</tr>
<tr>
<td></td>
<td>ambitions, potential for future</td>
<td>samples, résumé, references, internship</td>
</tr>
<tr>
<td></td>
<td>contributions, flexibility.</td>
<td>evaluations, certifications, reports/logs,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>computer programs, awards, transcripts.</td>
</tr>
<tr>
<td>Writing</td>
<td>Voice, creativity, diverse and flexible</td>
<td>Essay drafts, journal, listserv or threaded</td>
</tr>
<tr>
<td></td>
<td>skills, craftsmanship, facility with</td>
<td>discussion entries, research papers,</td>
</tr>
<tr>
<td></td>
<td>language, research proficiency.</td>
<td>publications, concept maps or outlines.</td>
</tr>
<tr>
<td>Prior Learning</td>
<td>Mastery of content.</td>
<td>Products demonstrating skills and competency,</td>
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<tr>
<td></td>
<td></td>
<td>references, achievement/placement test scores,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>interview transcripts.</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Critical thinking, creativity, application</td>
<td>Problem-solving log, lab reports, computer</td>
</tr>
<tr>
<td></td>
<td>of knowledge, flexibility, curiosity.</td>
<td>programs, spreadsheet data analyses.</td>
</tr>
<tr>
<td>Field Experiences</td>
<td>Application of knowledge, trained skills,</td>
<td>Field journals, logs, reports, video/audio</td>
</tr>
<tr>
<td></td>
<td>adaptability.</td>
<td>tapes, photos, project leader’s evaluation,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>grant proposal, publication.</td>
</tr>
<tr>
<td>Achievement in Major, Honors</td>
<td>Challenge, risk, creativity, reflection,</td>
<td>Application or first-year essays alongside</td>
</tr>
<tr>
<td>or Other Academic Program,</td>
<td>motivation, self-direction, preparation,</td>
<td>capstone retrospective essays, senior</td>
</tr>
<tr>
<td>Awards Competition</td>
<td>higher-level skills, collaboration,</td>
<td>thesis/project, essays/labs/projects in</td>
</tr>
<tr>
<td></td>
<td>service, leadership, value-added</td>
<td>draft and final forms with feedback and</td>
</tr>
<tr>
<td></td>
<td>education.</td>
<td>responses, academic presentations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(programs, handouts), creative performances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(video, audio, programs, reviews), service/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>leadership records, photos, posters, awards.</td>
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</tbody>
</table>
documentation of learning through detailed outcomes. It is a powerful way of providing evidence of educational growth tied to students’ reflections on the content, scope, and value of their learning.

As we provide more opportunities for students to practice reflective learning, we may feel the anxiety that comes with being tyrannized by content coverage. Helping students understand the philosophy and mechanics of reflective practice takes time, experimentation, experience, and reimagined goals. But reflection, as virtually all educational theorists have argued, is not a faddish distraction from vital construction of knowledge or honing of practical skills. Reflection deepens learning; makes learning more meaningful and relevant; makes learning more durable; and helps students own their own learning as more independent, self-directed, lifelong learners. An increasing number of institutions are, in fact, supplying alumni with ongoing access to server space, enabling graduates to maintain portfolios long after commencement, a nod toward a true conception of portfolio development as a lifelong commitment to learning (and a compelling alumni relations gambit, too!).

Paying close attention to language, we should not overlook the importance of the term “learning portfolios.” While portfolios provide teachers and administrators with diverse, multi-source information for the purposes of assessment and evaluation, the core reason for embracing portfolio work in our enterprise of teaching and learning is to inspire our students to become active, engaged, reflective learners. The learning portfolio promotes and sustains our students’ academic enrichment and personal growth, making it a powerful idea for significant learning.

John Zubizarreta is a professor of English, director of Honors and Faculty Development, and former dean of Undergraduate Studies at Columbia College. He has published widely on modern American, British, and comparative literatures; teaching pedagogy; honors education; teaching, learning, and administrative portfolios; and faculty development. Foremost among his disciplinary publications is his co-edited Robert Frost Encyclopedia (Greenwood, 2001).

A Carnegie Foundation/C.A.S.E. Professor for South Carolina, he has also earned recognition for teaching and scholarly excellence from the American Association for Higher Education, the South Atlantic Association of Departments of English, the National United Methodist Board of Higher Education, the South Carolina Commission on Higher Education, and other educational organizations.

John has led faculty development workshops and delivered keynote addresses worldwide, and he has mentored faculty nationwide and abroad in enhancing and documenting teaching and learning. His recent books include his co-authored Inspiring Exemplary Teaching and Learning: Perspectives on Teaching Academically Talented College Students (National Collegiate Honors Council, 2008) and The Learning Portfolio: Reflective Practice for Improving Student Learning (Anker, 2004, and 2nd edition by Jossey-Bass, 2009).

When the academic life becomes too hectic, John is an avid telemark skier; an overly ambitious, aching runner; a former six-time national champion in whitewater canoe competition; a moonstruck husband; and the adoring father of two girls who keep him busy outside the ivied walls.
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