Portfolio design is integrated as an early project in the teacher education curriculum at the University of Idaho. The project provides students with a first experience in gathering and organizing data for the purpose of tracking professional growth and development. It also provides faculty with an authentic assessment tool. The portfolio causes education majors to produce projects that show a knowledge of subject matter as well as knowledge of the technology of teaching. As part of an Introduction to Teaching course, the portfolio becomes the beginning of self-assessment, development of a philosophy of education, and student reflection on the profession. The portfolio assignment consists of a teaching resume, lesson plans, self-enhancement plan, educational philosophy, reflection on professional growth, and other items. The literature on the use of portfolios has revealed many purposes for portfolios as assessment tools. Student reflections on the portfolio activity and suggestions for improvement are offere.d. (Contains 13 references.)

(JDD)
PORTFOLIO DEVELOPMENT AND ASSESSMENT
IN A TEACHER PREPARATION PROGRAM

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INTRODUCTION

One of the most exciting aspects of the teaching profession is the challenge and opportunity it affords for creativity. This creative dimension of the profession is what makes teaching exciting for teachers and learning fascinating for students (Pedras, 1993). In an effort to capture this excitement for students enrolled in a teacher education program at the University of Idaho, and with an eye toward assessment, professional development in the form of portfolio design has been integrated as an early project in the curriculum. The project provides students with a first experience in gathering and organizing data for the purpose of tracking their professional growth and development. It also provides faculty with an authentic assessment tool.

For students entering a teacher education program, professional development most likely does not have the same meaning that it will when they enter the field as practicing teachers. How, then, can we help students understand and prepare for this important aspect of the profession? Is it plausible to even introduce students to professional development at this stage of teacher preparation? If so, what method would be most effective? These and other questions provide the focus for this discussion.

The teacher education program at the University of Idaho has initiated the use of portfolio development beginning in its Introduction to Teaching course. The case is made early in the course that students should begin thinking about and assembling data that will demonstrate their professional growth and development.

The assignment of preparing a portfolio should help students stimulate critical self-analysis and better prepare them to become reflective practitioners. The project is further designed to help students provide tangible, concrete evidence of performance in the course. The portfolio provides a record of real teaching activities that can be assembled and presented as evidence of professional growth (Selden, 1991).
USES OF PORTFOLIOS

Portfolios have been used for many years as a tool for artists, architects, and authors to display their work. Post-secondary programs that teach trades such as welding, baking, and autobody repair encourage their students to develop portfolios showing pictures of their work and, if possible, actual samples. This is especially appropriate for people whose vocations require creation of original works, such as clothing designers and commercial illustrators, and those who design or fabricate dies or other metal objects.

Perhaps the most telling reason for development of a portfolio by these people is that much thought must go into the making of each of the samples comprising the contents. A welder, for instance, might put in samples of gas and arc welding, brazed pieces, overhead welding, and underwater welding, as well as photographs of particularly difficult or innovative repairs. In education, a portfolio might contain examples of lesson delivery captured on video, a unit outline and corresponding lesson plans, sample test instruments including performance-based criteria for assessment, a personal philosophy of teaching and other examples of professional work demonstrating teaching competence. These materials can be presented in such a manner that professional growth can be readily assessed.

Certainly, a prospective employer has a much clearer idea of what an applicant can do with such a portfolio to review. Regardless of who uses it, the purpose of the portfolio is to say, "Here is what I can do, here is how I do it, and here is why you should hire me instead of the other applicants."

A major element of portfolio development is knowledge of the assessment techniques used by a reviewer. Addressing this issue, Erwin (1991) compares two techniques, the "selected-response" and "constructed-response" assessment techniques, distinguishing them by calling the former a recognition format and the latter a production format. He also quotes several authors as saying that the multiple choice, true-false, and matching questions that make up selected-response techniques are viable measures of how much learning has taken place. To demonstrate the constructed response technique, an example is given in which a dance major would be expected to perform before an audience as part of the assessment process.

While the selected-response technique is suitable to measure some things, it falls short when it is used to assess learning in areas such as painting.
or sculpture. It's all very well to assess a sculptor's knowledge of metal-casting or rock types, or a painter's ability to mix colors, but the accomplishment of both of these people is measured by the quality of the creation that is a result of adding creative ability to technological expertise. The quality of a sculpture can't be measured by a true-false test. In fact, the ability to produce something can only be predicted with the standard selected-response techniques; it can't be measured in this way and that is why the portfolio (the quintessential constructed response) is used in assessment of performance.

Kramer (1991) states that, at present, our teacher-training institutions; the schools, colleges, and departments of education on campuses across the country, are producing for the classrooms of America experts in methods of teaching with nothing to which to apply those methods. Whether or not one agrees with this scathing indictment of education in the United States, it is obvious that many people perceive it in this way. Because portfolios show results of activities based on what has been learned, they make admirable assessment tools for teacher training. If Kramer is correct, the portfolio should begin to correct that problem by causing students of education to produce projects that show a knowledge of subject matter as well as the knowledge of the technology of teaching. If Kramer is wrong, then the portfolio will show that teacher training is indeed preparing teachers who have something to teach as well as being well versed in teaching methods. In any event the portfolio is a way of showing what has been accomplished and, in the case of teachers, how those accomplishments may be converted toward better teaching.

There are several particular advantages to using this method of assessing the results of teacher training. Portfolios yield profound insights for both students and faculty into the ways that individuals perform in the course of their studies (Barton and Collins, 1993). As part of an Introduction to Teaching course the portfolio becomes the beginning of a student's reflections on the profession, and helps prospective teachers begin to think about what it is that makes a good practitioner of the art. It also introduces the student to self-assessment and to the process of developing a philosophy of education. Finally, it is the beginning of a long list of things that effective teachers make in order to have a variety of techniques and materials available for teaching to as many student learning styles as possible.
PURPOSE OF PORTFOLIOS

Using portfolios as an assessment tool of student performance has become very much in vogue in recent years. While in vogue portfolios are not a fad, they are part of a range of authentic assessment methods which are replacing standardized tests in public schools and post secondary institutions around the nation. The success of authentic assessment as an empowering process for students and educators indicates that these methods will "have legs", to borrow a term from the film industry.

What distinguishes authentic assessment practice? "Good assessment is built on current theories of learning and cognition and grounded in views of what skills and capacities students will need for future success. To many, good assessment is also defined by what it is not: standard, traditional multiple choice items" (Herman, 1992, p. 75). Good assessment should evaluate "production rather than recognition [of test information]: students must demonstrate competence rather than selecting an answer. Projects rather than items: a choice of depth over breadth" (Calfee and Perfumo, 1993, p. 532). Barton and Collins (1993) point specifically to authenticity in evaluating preservice teachers when they state that such evaluations should, "take into account the kinds of experiences they encounter and the professional duties they will be called upon to perform in schools " (p. 200). Authenticity, then, lies in a "real world" quality built into the assessment method.

Calling these techniques "informal assessment", the May, 1990 Journal of Reading points to the reason for the success of authentic assessment. "It is directly related to the curriculum, it provides a meaningful picture of student growth and establishes attainable goals, helping students maintain a positive self-image, keeping them motivated, and giving them a feeling of purpose and control" (p. 644). The entire May, 1992 issue of Educational Leadership, focused exclusively on alternative assessment and portfolios, the themes of meaningfulness, empowerment, and student achievement in both the cognitive and affective domains are repeated in article after article in that issue: "authentic tasks and portfolios . . . push students to demonstrate their mastery of content and thinking power" (O'Neil, p. 16). O'Neil further singles out portfolios as showing "a range of skills and the ability to do complex thinking" (p. 14). Frazier and Paulson (1992) add that "portfolio assessment offers students a way to take
charge of their learning; it also encourages ownership, pride, and high self-esteem" (p. 64).

If the portfolio gives the students "a portrait of themselves as able learners" (Wolf, LeMahieu, and Eresh, 1992, p. 11), it is also an empowering of faculty, enabling them to take control of the assessment process at the classroom level, tailoring that process to their students’ needs. "Across wide variations in approaches and definition the portfolio approach has energized the professional status and development of educators, especially classroom teachers" (Calfee and Perfumo, p. 534). These classroom teachers in turn influence assessment practice in their building, district, and state.

What, then, is a student portfolio and how is it assessed in the educational setting? Barton and Collins (1993) note some characteristics of student portfolios as they designed them and cite previous studies which outline the nature of a portfolio’s contents. They state that a portfolio must have an "explicit purpose" which is understood by students and facilitators, that they are "multisourced" providing a variety of evidence for evaluation. Portfolios must truly integrate course content and field experience, must directly reflect classroom instruction and be "dynamic", i.e. represent learning over time. Finally, portfolios should engender a feeling of ownership in students and serve a purpose in their learning/teaching careers beyond the parameters of any one assignment or course (pp. 202-3).

The kinds of evidence in portfolios—as cited by Barton and Collins—include "artifacts, productions, attestations, and productions" (p. 203). Artifacts include field notes or a class paper, while a tape of an interview with a mentor teacher would fall into the category of a reproduction. A letter from that mentor teacher on the student’s success in a practicum exemplifies an attestation. "A goal statement of the student’s purpose in creating the portfolio or reflections on learning experiences are examples of productions created specifically for the portfolio" (p. 204). Barton and Collins favor variety in the nature of evidentiary documents and suggest that both faculty and students have a voice in selecting evidence. "Rich portfolios include a combination of some prescribed (designer required) evidence and some elected (developer chosen) evidence. When prescribing evidence, we have been more successful in prescribing form (a video of a lab lesson) than specific content (a lesson on photosynthesis)" (p. 204).
The Journal of Reading (1990) gives more general guides for the contents of student portfolios "anything that reflects the student's strengths, growth and goals: self-assessments, teacher observations, metacognitive interviews, [and] samples of writing that reflect the student's success at constructing meaning" (p. 345). Review of evidentiary choices by both teacher and student is also emphasized here so "that both teacher and student understand the value of each item included in the portfolio" since "knowing the purpose of the items included in the portfolio ensures that the student and the teacher both see the relevance of each item to the student's attainment [of learning goals]" (p. 346).

Clarity of purpose, methods, and goals provide a foundation for portfolio assessment which brings concreteness to what might otherwise be a somewhat ephemeral process. Barton and Collins focused their portfolio assessment process "on getting an accurate measure of each individual's professional growth" and in practice found that "grading our students portfolio entries is no more difficult than grading an essay or a project" (p. 205). Other portfolio projects (Rousculp and Maring, 1992) use peer collaboration and review or assessment by more than one faculty member to determine both course content attainment and placement of students in future classes.

Education practice often seems to operate in a non-Newtonian universe in which ideas "trickle up" from the elementary and secondary classrooms to be incorporation into teacher training programs. This seems to be particularly so with authentic assessment practice and portfolios. In the section that follows we will discuss how the general uses of portfolios translate into the setting of an Introduction to Teaching course, helping transform that course from just "about" teaching "to being an actual experience" of the teaching profession (Rousculp and Maring, p. 384).

PORTFOLIO ASSIGNMENT FORMAT

The portfolio assignment used in the course Introduction to Teaching consists of several specific items which students are asked to address: (a) Teaching resume, (b) Lesson plans, (c) Self-enhancement plan, (d) Educational philosophy, (e) Professional growth, (f) Reflection question and (g) Selection.
choice. These sections are shown below in the assignment section and include specific requirements for each.

The assignment is integral to the course and students are expected to work on it throughout the semester. Since it is developmental in nature, several of the components are completed early on and then after reflection students are asked to readdress the particular component requirements. An example of this procedure is lesson plan development whereby students design the plan, deliver the lesson and then modify the plan for improvement. Another example is the development of an educational philosophy. Students are directed to begin this early in the course and show how it matures throughout the course.

PORTFOLIO ASSIGNMENT

NAME __________________________
Points Possible _______  Points Earned _______
DUE DATE ________________

The portfolio project will help you begin the process of reflective thinking in education. It will also help you decide how to represent yourself to the profession.

Please note - the project will not be accepted after the due date and unless all items listed are completed.

The portfolio project must be prepared and packaged in a professional manner. This will include:
- All required items and one optional item as noted below
- All work neatly typed or computer printed
- A package design such as a three-ring binder, or other suitable folder
- Cover design with name of project, course and section number, breakout instructor name and date submitted
- Table of contents
- Appropriate pagination
- Section identification such as tab inserts

Required Items:

(3 pts.) 1. Teaching Resume - based on guidelines presented in class.

2. Lesson Plan(s) - refined from the class presentation including:
   (1 pt.) a. the plan used for class delivery, and
   (2 pts.) b. modified plan based on your reflection for improvement.
3. **Self Enhancement Plan** - as discussed in class including:
   a. original submitted in class, and
   b. evidence suggesting your progress by the end of class.

4. **Educational Philosophy** - a brief discussion of your perceived contribution to the institution of education.

5. **Professional Growth** - a brief reflection of your professional growth as a result of completing this portfolio. Include any changes you would make to enhance this project for your personal use.

6. **Reflection Question** - select one reflection question assigned during the semester. Comment on how you would readdress the same issue after having completed most of the course.

**Select and Complete One**: (3 pts.)

1. Educational Issue - Cite one major issue in education and present evidence from the media (journal, newspaper, etc.) of its importance. Briefly discuss the implications of this issue to you as a future teacher.

2. Interview - Interview someone other than the person used for the field experience interview. Contrast this person's interview responses with those from the other interview. Discuss the implication of the interview responses for your future teaching. Include a list of questions used to guide your interview and explain your rationale for each question.

3. Discipline - Obtain a copy of a discipline plan from the school you are working in. Briefly discuss the strengths and weaknesses of the plan. Include in your discussion how you would modify the plan. Include a copy of the original plan in the portfolio.

4. Case Study - Present written evidence that you have observed the progress of one individual student during your field experience. **Show** how you have played a role in his or her progress.

5. Extra Curricular Activity - Present evidence that you have assisted with one recent out-of-class school activity. Discuss your involvement and how it benefited you as a future teacher.
This assignment has been in use for several semesters with positive results. Students begin to understand the nature of preparing professional materials and seem to enjoy reviewing a record of their accomplishments. For those who elect to stay in the teacher education program, the project provides a starting point for the compilation of professional materials which will document their growth and maturity in the initial stages of the profession.

The teacher education program at the University of Idaho is adopting portfolio assessment in several classes. Ultimately, this beginning student experience may lead to a major project that will be on-going in the full curriculum.

The following section will discuss suggestions made by students for the improvement of the project. It will also include a brief reflection by faculty and graduate teaching assistants.

STUDENT REFLECTIONS AND SUGGESTIONS FOR IMPROVEMENT

A teaching portfolio should help students do several things: chronicle their development as future teachers, highlight the very best of developing professional skills, present examples of varied instructional materials and demonstrate growth in teacher preparation (Urbach, 19992). The project discussed in this paper is an effort to accomplish this and has achieved excellent results to date.

After each course students were asked to make suggestion for improving this assignment. Following is a list of suggestions made by students reflecting on their own personal growth as a result of the project.

In response to the professional growth item in the portfolio assignment, many students commented on the development of their teaching resume. They said:

"enabled me to identify different things that I would like to do before I begin applying for teaching positions".
"has given me practice in putting together one.."
"taught me that teachers need to be well qualified.."
"showed me where I need to improve my experiences/education.."
"made me start the process I already know is necessary.."
The self-enhancement assignment item was likewise addressed with comments such as:

"I believe this was a very important assignment because one should always know where their personal weaknesses lie. It is imperative for a teacher to look inside oneself and see how they can improve."

The students in this Introduction to Teaching course had some difficulties in writing their philosophy of education. However, all of them seemed to realize that this was just a starting point, and that their philosophy would change with experience and education. Comments reflecting their thinking on this item were:

"by putting my philosophy down on paper I will have an opportunity to see if and how my philosophy has changed."
"One day I will be able to look back and reflect upon my opinions and values in order to determine how they have changed and/or stayed the same."
"I realize that I need to develop a more solid personal philosophy on education."

Class discussions on the purpose of a portfolio led each student to reflect upon the meaning of this assignment. Some of their thoughts were:

"I have constructed this portfolio to best help me set future goals and expectations for myself."
"I did quite a bit of soul searching. I really thought about some of the reasons why I am entering the profession."
"Essentially, it has helped me grow up and push me one more step toward being a teacher."
"In finding ways to observe how you have improved, I think the teacher can find new and different ways to observe their students."
"Completing this portfolio has enhanced my professional growth as a future teacher because it has forced me to think about and develop my very own ideas, theories, methods and styles."
"The portfolio assignment made me sit down and actually take inventory on myself and find out who I am."
SUMMARY

A teaching portfolio should help students do several things: chronicle their development as future teachers, highlight the very best of developing professional skills, present examples of varied instructional materials and demonstrate growth in teacher preparation (Urbach, 1992). The project discussed in this paper is an effort to accomplish this and has achieved excellent results to date.

On the whole, the project allowed students to begin formulating what it means to be a teacher in a personal way. Each portfolio was different and each student learned different things from it. Their comments and reflections on the developmental process reveal that the project was authentic to them.
References


